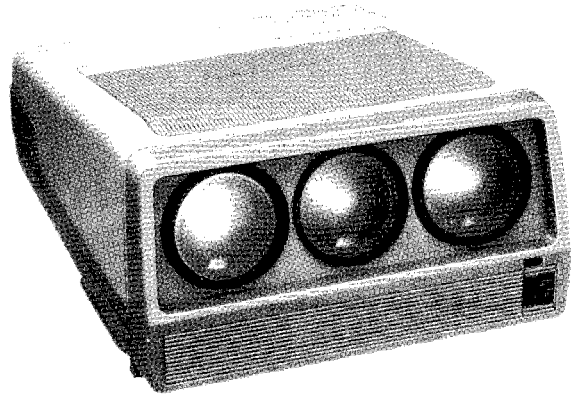
VPH-1272QM/Q
RM-1271

SERVICE MANUAL

VPH-1272QM
Chassis No. SCC-D13D-A
VPH-1272Q
Chassis No. SCC-D27D-A



SuperData EX

Note: The service manual for **RM-1271** has been issued separatly

MODELS OF THE SAME SERIES	
VPH-1272QM/Q	
VPH-1252QM/Q	

SPECIFICATIONS

Optical

Projection system	3 picture tubes, 3 lenses, Horizontal inline system
Picture tube	7-inch new high-brightness monochrome tubes, with coolant sealed
Projection lens	HACC (High-resolution Aspherical and Color Corrected) lenses F 1.12/140mm
Projected picture size	Factory-adjusted to 120 inches measured diagonally 70-300 inches measured diagonally adjustable by changing the parts
Light output	700 lm (white peak) 200 lm (all white)

General

Color system	PAL, SECAM, NTSC and NTSC4.43 systems, switched automatically
Resolution	700 TV lines (VIDEO input) 1500x1200 pixels (RGB input at f_H 74.4kHz, f_V 60Hz)
RGB inputs	Horizontal frequency 15kHz-93kHz Vertical frequency 38Hz-150Hz
Test signal	Cross-hair test pattern generator is incorporated.
Speaker	4x8cm (1 5/8x3 1/4 inches), 3W
Input	VIDEO IN Y/C: 4-pin mini DIN connector Y (luminance) signal: 1 Vp-p ±2dB, sync negative, 75 ohms terminated C (chrominance) signal: burst 0.286 Vp-p±2dB, 75 ohms terminated (NTSC) 0.3 Vp-p±2dB, 75 ohms terminated (PAL)

— continued on next page —

MICROFILM

MULTISCAN PROJECTOR

SONY®

VIDEO: BNC connector
Composite video input, 1 Vp-p ±2dB, sync negative, 75 ohms terminated.
AUDIO IN
phono jack
500 m Vrms, Impedance: more than 47 k ohms

RGB input
R: BNC connector
Red input, 0.7 Vp-p ±2dB, 75 ohms terminated, positive
G/G SYNC: BNC connector
Green input, 0.7Vp-p ±2dB, 75 ohms terminated, positive
Green with sync input, 1Vp-p ±2dB, 75 ohms terminated, positive
B: BNC connector
Blue input, 0.7Vp-p ±2dB, 75 ohms terminated, positive
SYNC/HD: BNC connector
Composite sync input, 0.3–8Vp-p, high impedance, positive/negative
Horizontal sync input, 0.3–8Vp-p, high impedance, positive/negative
VD: BNC connector
Vertical sync input, 0.3–8Vp-p, high impedance, positive/negative
Width: wider than horizontal period (1H)
AUDIO IN L(MONO)/R: phone jacks
REMOTE 1 connector: 14-pin (see "Signal assignment")
REMOTE 2 connector: 9-pin (see "Signal assignment")
CONTROL S IN: minijack, 5Vp-p

Outputs
VIDEO OUT: BNC connector
Composite video output, 1Vp-p ±2dB, impedance 75 ohms, output video signal from the VIDEO IN connector
CONTROL S OUT: minijack, 5Vp-p

Power requirements 120 V AC, 50/60Hz (VPH-1272Q)
220-240 V AC, 50/60Hz (VPH-1272QM)

Power consumption 560W (VPH-1272Q)
540W (VPH-1272QM)

Operating temperature –10°C –+40°C
(humidity: 10% –90%)

Storage temperature –20°C –+60°C
(humidity: 10% –90%)

Dimensions Approx. 620x355x817mm (w/h/d)
(24 1/2x14x32 1/4 inches)

Weight 64kg (143 lb 5oz)

Accessories supplied
Remote Commander RM-1271 (1) with 3 R6 (AA) batteries
Remote Commander cable (1)
AC power cord (1)
Washer for optical axis adjustment (12 each for 4 sorts of thickness)
CRT spacers (1set each for the size S and L))
Spacer for rear projection (1 set each for the angles of optical axis 0° and 2°)

Accessories (not supplied)

Signal interface switcher
PC-1271 (VPH-1272Q)
PC-1271M (VPH-1272QM)

Projector suspension support
PSS-1270, PSS-10

Screen
VPS-72HG1 (72" curved)
VPS-100HG1 (100" curved)
VPS-700R (70" rear projection)
VPS-80FH (80" flat manual)
VPS-80FMJ (80" flat auto)
VPS-100FH (100" flat manual)
VPS-100FMJ (100" flat auto)
VPS-120FH (120" flat manual)
VPS-120FMJ (120" flat auto)
VPS-701R (70" rear projection)

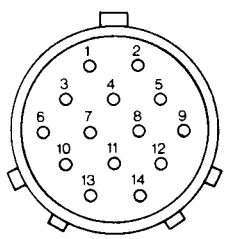
CCQ BRS cables

Interface board
IFB-11 (5BNC, Analogue)
IFB-20 (9-pin, Analogue)
IFB-1000 (Video, Y/C)
IFB-30 (9-pin, Digital)
IFB-101
IFB-1300 (3BNC, HD)

Signal assignment

REMOTE 1 connector (14-pin)

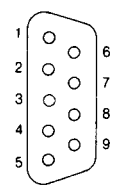
Pin No.	Signal
1	GND
2	HD/Composite Sync
3	SIRCS
4	NC
5	GND(SIRCS)
6	B/C
7	GND(B/C)
8	GND(G/Y)
9	G/Y
10	RGB/Video
11	R/Composite Video
12	Composite Video/YC
13	AUDIO
14	VD



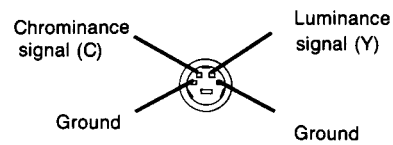
REMOTE 2 connector (D-sub 9-pin)

Pin No.	Signal
1	Frame Ground
2	$\overline{\text{Transit A}}$
3	Receive B
4	Receive Common
5	Spare
6	Transmit Common
7	Transmit B
8	$\overline{\text{Receive A}}$
9	Frame Ground

RS-422 format



Y/C connector (4-pin mini DIN)



• Note for when using this manual.

These following sections GENERAL, DISASSEMBLY, CIRCUIT DESCRIPTIONS, SET-UP ADJUSTMENTS and CIRCUIT ADJUSTMENTS are the same as VPH-1271QM (PART No. 9-978-199-01) and VPH-1271Q (PART No. 9-978-197-01) so refer to mentioned above service manual.

SAFETY CHECK-OUT
(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shelds, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the metal trim, metallized" knobs, screws, and all other exposed metal parts for AC leakage.
   Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth gournd. If the retaining screw is to be used as your earth-groung, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60−100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

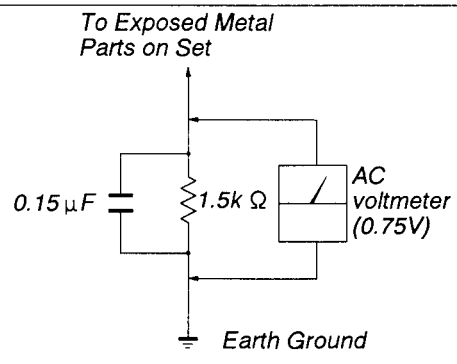


Fig. A. Using an AC voltmeter to check AC leakage

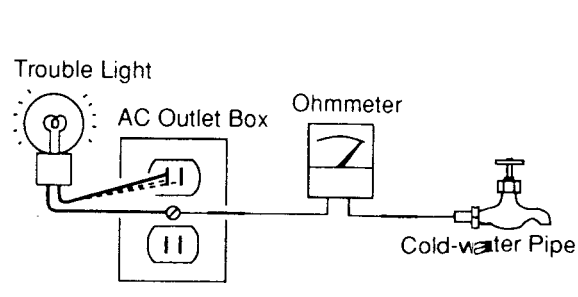


Fig. B. Checking for earth ground.

TABLE OF CONTENTS

Section	Title	Page
1.	**SAFETY RELATED ADJUSTMENT**	6
2.	**DIAGRAMS**	
2-1.	Circuit Boards Location	10
2-2.	Block Diagrams	11
2-3.	Frame Schematic Diagrams	25
2-4.	Schematic Diagrams and Printed Wiring Boards	28
	BA Board	29
	BB Board	38
	BM Board	46
	BC, KA, L, Boards	52
	CA(B) Board	57
	CA(RG) Board	62
	DA Board	68
	DB Board	76
	DC Board	84
	E Board	90
	Y Board	96
	DM Board	103
	DD Board	110
	DE Board	116
	PA, PB, PC, Boards	123
	CFA, CFB, K, NA, NB, Boards	131
	CBR, CBG, CBB, QM, Boards	138
	RC, RCA, RCB, RCC, RCD, Boards	144
2-5.	Semiconductors	149
3.	**EXPLODED VIEWS**	
3-1.	Lens	152
3-2.	ED Block	153
3-3.	C Shield Block	154
3-4.	Base 1	155
	Base 2	156
4.	**ELECTRICAL PARTS LIST**	157

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SECTION 1
SAFETY RELATED ADJUSTMENT

When exchanging ◪ part check HV hold-down circuit, HV regulation circuit, LOW B protector circuit and beam current protector circuit.

⋈ R33, R34 [HV hold-down] PA board.
◪ IC2, Q7, D9, D12, C13, R20, R21, R22, R23, R24, R33, R34, R35, R36, R82, HV BLOCK, PA mount

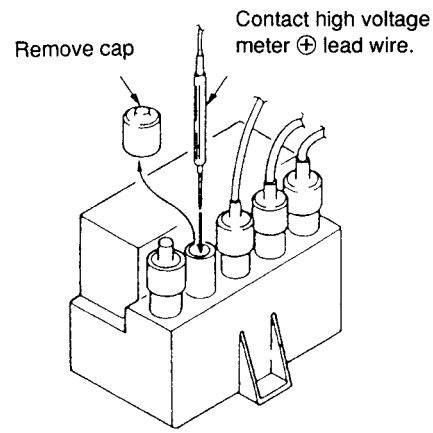
⋈ R131, R132, [HV regulation] PA board
◪ IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13, R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1, HV BLOCK, PA mount, PB mount

⋈ R29, R30, [LOW B protector] PA board
◪ IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R29, R30, R31, R88, R95, PA mount

⋈ R1, R4, [Beam current protector] PA board
◪ IC1, IC3, IC5, Q1, Q2, Q7, Q8, D4, D5, D9, R1, R2, R3, R4 R5, R6, R7, R8, R9, R10, R20, R21, R22, R24, R43, R44, R45, R46, R47, R82, R88, R121, R122, R143, R144, R733 (DA board), PA mount, PB mount

⋈ R33,R34 : HV Hold-down

1. Confirm set power is turned OFF.
2. Connect high voltage meter ⊕ to HV filter vacant terminal and ⊖ to chassis earth.
3. Remove resistance mounted between PA board TP7–TP9. Connect variable resistor and set at 47KΩ.
4. Remove resistance mounted between PA board TP16–TP18.Connect variable resistor and set at 27KΩ.
5. Turn RV1 fully counterclockwise
6. Turn set power ON.
7. Input monoscope signal, and set RGB CUT OFF switch to ON.
8. Turn variable resistor between TP16–TP18 to change resistance value and adjust high voltage to around 34.0±0.3KV.
9. Turn variable resistor between TP7–TP9 to change resistance value, adjust high voltage to around 34.0±0.3KV, and confirm hold-down circuit operates and raster disappears.
10. Turn set power OFF.
11. Remove variable resistor between TP7–TP9. Measure the volume resistance value and solder on the same amount of resistance to R33, R34 (carbon, 1/4W).
12. Next, slightly raise volume resistance value between TP16–TP18.
13. Turn set power ON.
14. Turn variable resistor between TP16–TP18 again and raise high voltage. Confirm hold-down circuit operates at 34.0±0.3KV and raster disappears.
15. Next, adjust HV regulation.

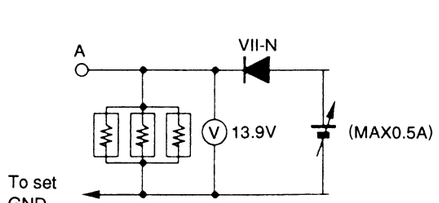


⋈ R131,R132 : HV reguration

1. Confirm set power is OFF.
2. Connect high voltage meter ⊕ to HV filter vacant terminal and ⊖ to chassis earth.
3. Set variable resistor between PA board TP16–TP18 to 27KΩ.
4. Turn set power ON.
5. Press CUT-OFF key and cut-off R. G. B.
6. Turn variable resistor between TP16–TP18 to change resistance value and adjust high voltage to around 33.0±0.3KV.
7. Turn set power OFF.
8. Remove variable resistance between TP16–TP18. Measure the volume resistance value and solder on the same amount of resistance to R131,R132 (carbon, 1/4W).
9. Turn set power ON.
10. Confirm high voltage meter reads 33.0±0.3KV.
11. Turn set power OFF and remove high voltage meter.

R29,R30 : LOW B Protector

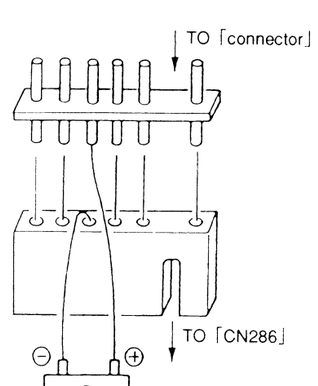
- Prepare jig circuit as shown in figure.
- Adjust until high voltage meter shows 13.9V.



1. Turn set power ON.
2. Contact jig circuit A point to PA board TP6 (12V line) for 0.5–1 sec, and remove immediately. Confirm power turns OFF when doing so.
3. If power does not turn OFF, adjust R29, R30.

R1,R4 : Beam Current Protector

1. Confirm set power is turned OFF.
2. Disconnect PA board connector CN286 and connect jig shown in figure.
3. Short circuit PA board Q1 emitter and collector.
4. Turn set power ON.
5. Input monoscope signal, send beam current by CONTR, BRT and G2VR, and confirm protector circuit operates at under 4700μA and raster is erased.
6. If protector circuit does not operate, adjust R4.
7. Remove jig short–circuiting Q1 emitter and collector.
8. Next, short–circuit Q2 emitter and collector.
9. Turn set power On.
10. Send beam current by CONTR, BRT and G2VR, and confirm protector operates at under 4700μA and raster is erased.
11. When protector does not operate, adjust R1.
12. Remove jig short–circuiting Q2 emitter and collector.



To check without Using High Voltage Meter

R33,R34 : HV Hold-doen

1. Use voltage dividing network shown in figure to calibrate detection until.

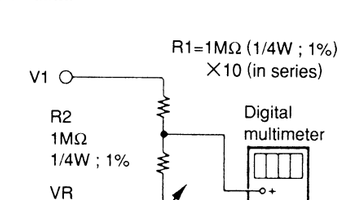
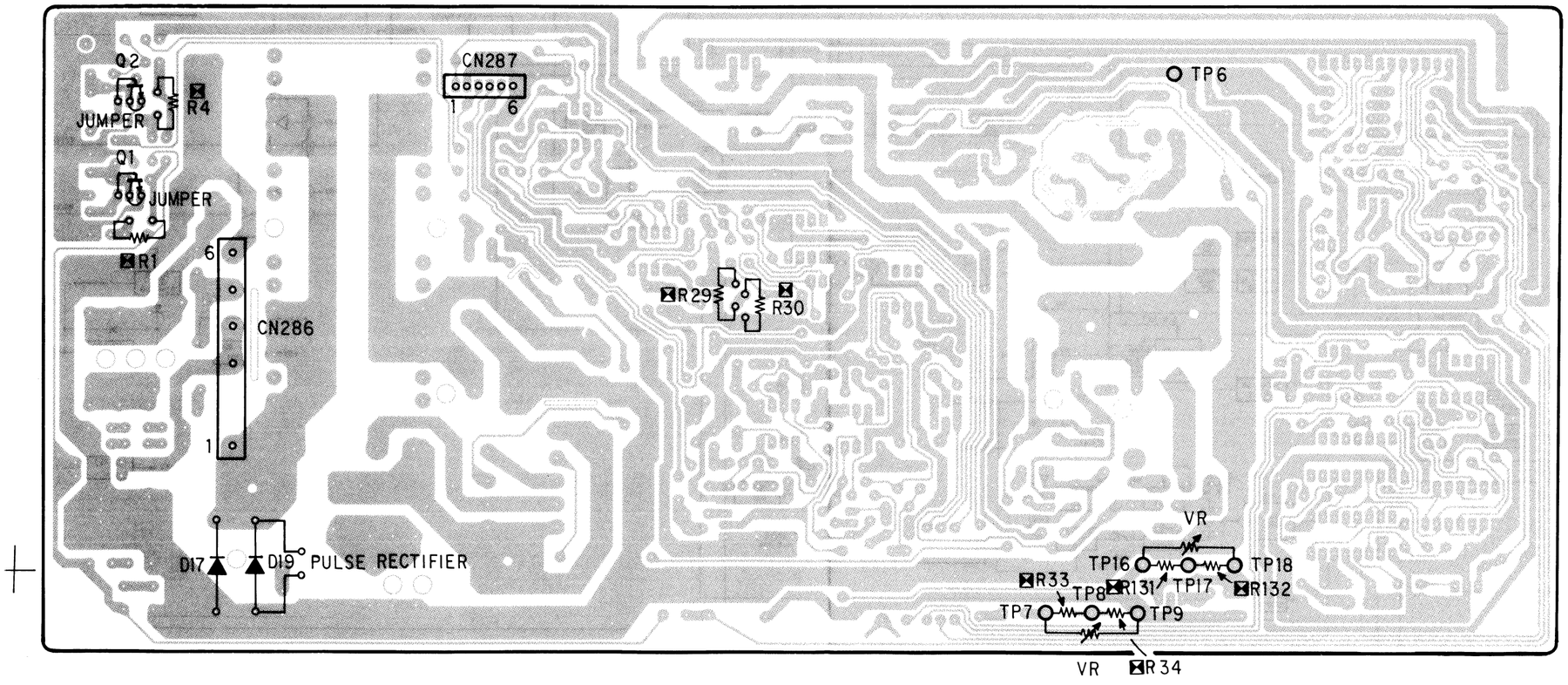


Fig. 1 : Voltage dividng network

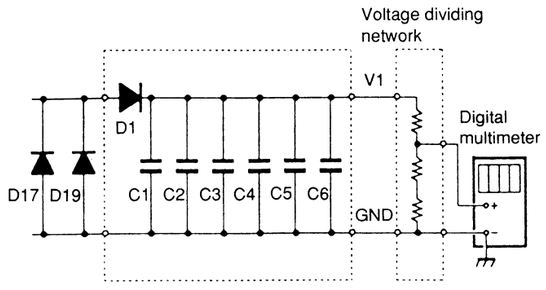
2. Remove PA board connector (CN287) to hold down high voltage. Connect V1 to 100V line of set and read V1 voltage with digital multimeter. Next, adjust volume (VR) so that digital multimeter value is 1/10 of V1.
3. Connect pulse rectifier between Pa board D17 or D19 anode and cathode.



e to calibrate

d down high
d V1 voltage
(VR) so that

or D19 anode



Pulse rectifier D1 : VIN-N
C1C6 : 20000P/1.6kV

4. Confirm set power is turned OFF.
5. Confirm pulse rectifier and voltage dividing network are connected.
6. Remove resistance mounted between PA board TP7–TP9, connect volume and set at 47KΩ.
7. Remove resistance mounted between TP16–TP18, connect volume and set at 27KΩ.
8. Turn RV1 fully counter clockwise.
   Connect PA board connector (CN287).
9. Turn set power ON.
10. Input monoscope signal, and set CONTR and BRT at maximum.
11. Turn variable resistor between TP16–TP18 and adjust until digital multimeter value is 96.5±0.5VDC.
12. Turn variable resistor between TP7–TP9, and confirm hold–down circuit operates and luster is erased when digital multimeter is 96.5±0.5VDC.
13. Turn set power OFF.
14. Remove volume between TP7–TP9. Measure the volume resistance value and solder on the same resistance volume to R33, R34 (carbon 1/4W).
15. Slightly raise volume resistance between TP16–TP18.
16. Turn set power ON.
17. Turn volume between TP16–TP18 and confirm hold–down circuit operates and raster is erased when digital multimeter value is 96.5±0.5VDC.
18. Next, adjust HV regulation.

⋈ R131,R132 : HV Regulation

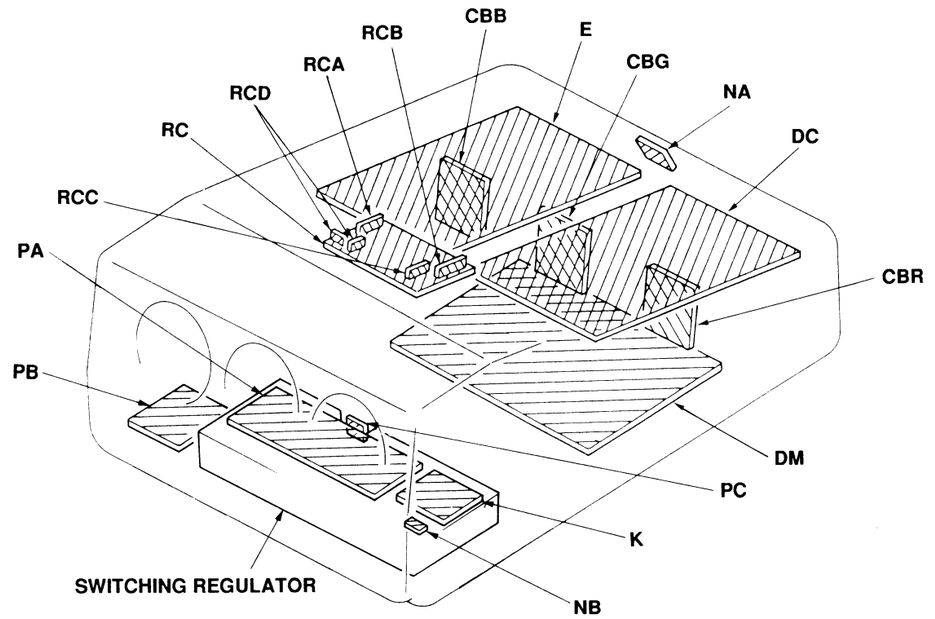
1. Confirm set power is OFF.
2. Set variable resistor between PA board TP16–TP18 at 27KΩ.
3. Turn set power ON.
4. Press CUT–OFF key to cut –off R, G, B.
5. Turn variable resistor between TP16–TP18 and change resistance value. Confirm digital multimeter value is 83.5±0.5VDC.
6. Turn set power OFF.
7. Remove TP16–TP18 variable resistor. Measure the volume resistance value and solder on the same resistance volume to R131, R132 (carbon 1/4W).
8. Turn set power ON.
9. Confirm digital multimeter value is 83.5±0.5VDC.
10. Turn set power OFF and remove pulse rectifier.

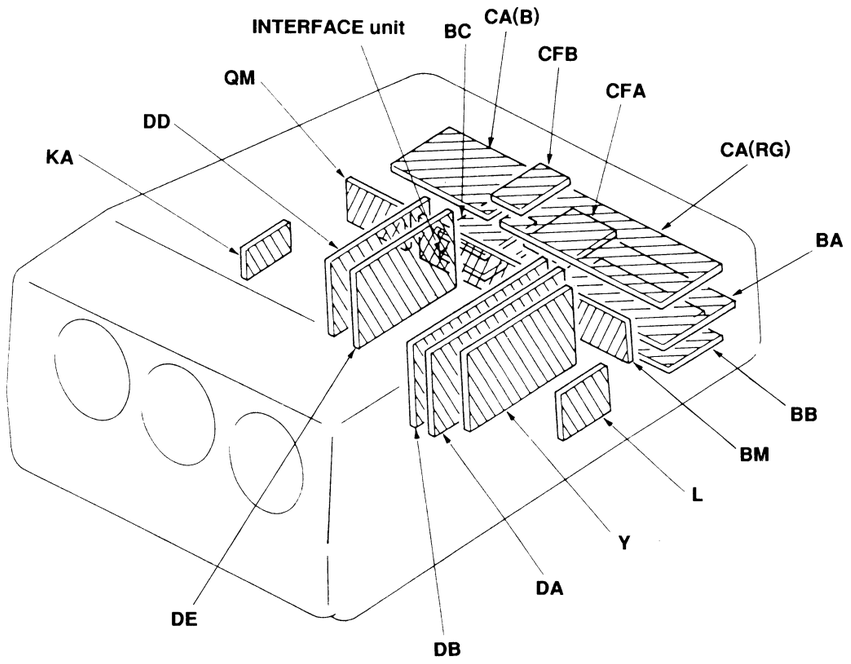
Confirmation when replacing Power Supply Block

Confirm that the voltage of +BMax, voltage is within the standard value when replacing Power Supply Block.

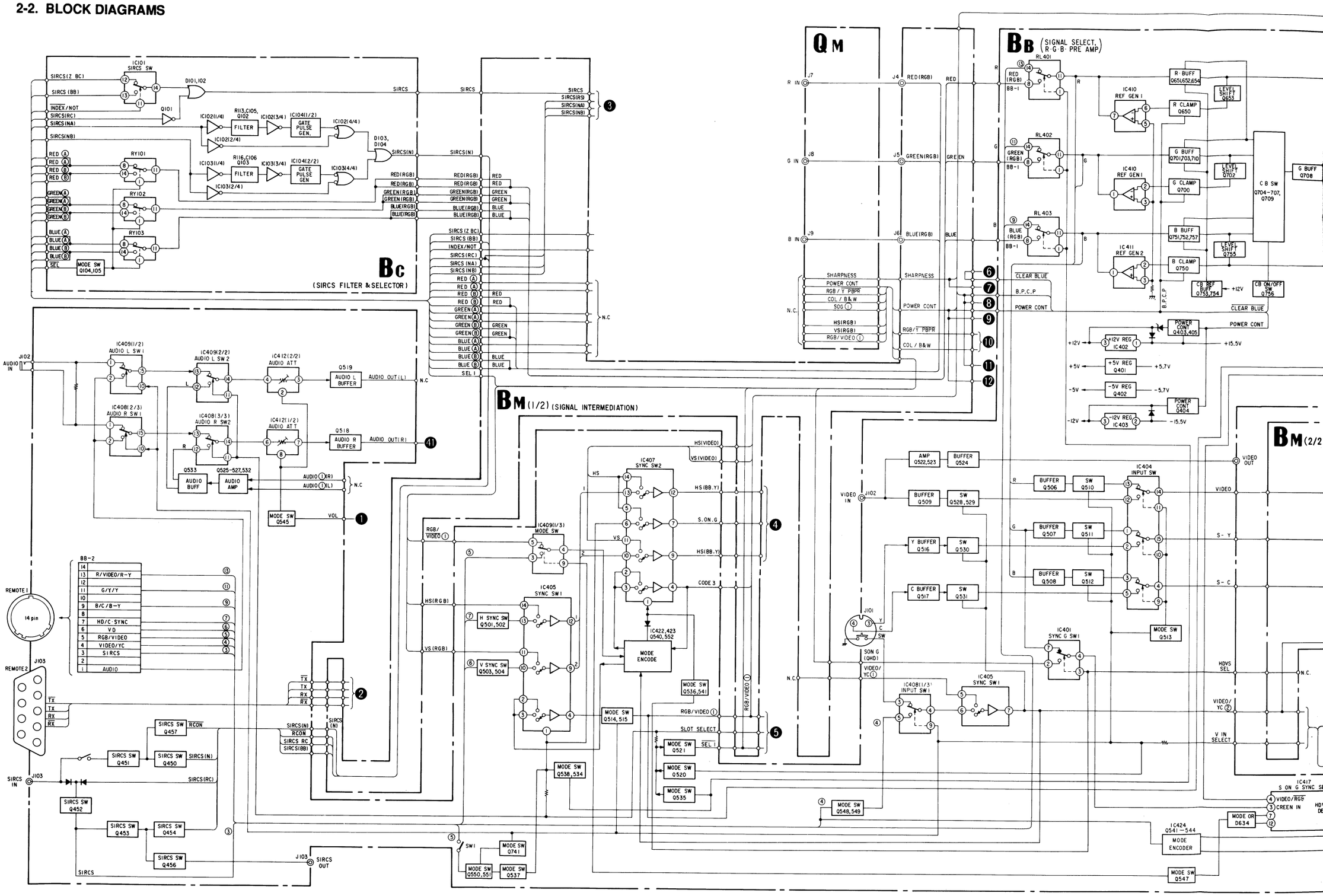
SECTION 2
DIAGRAMS

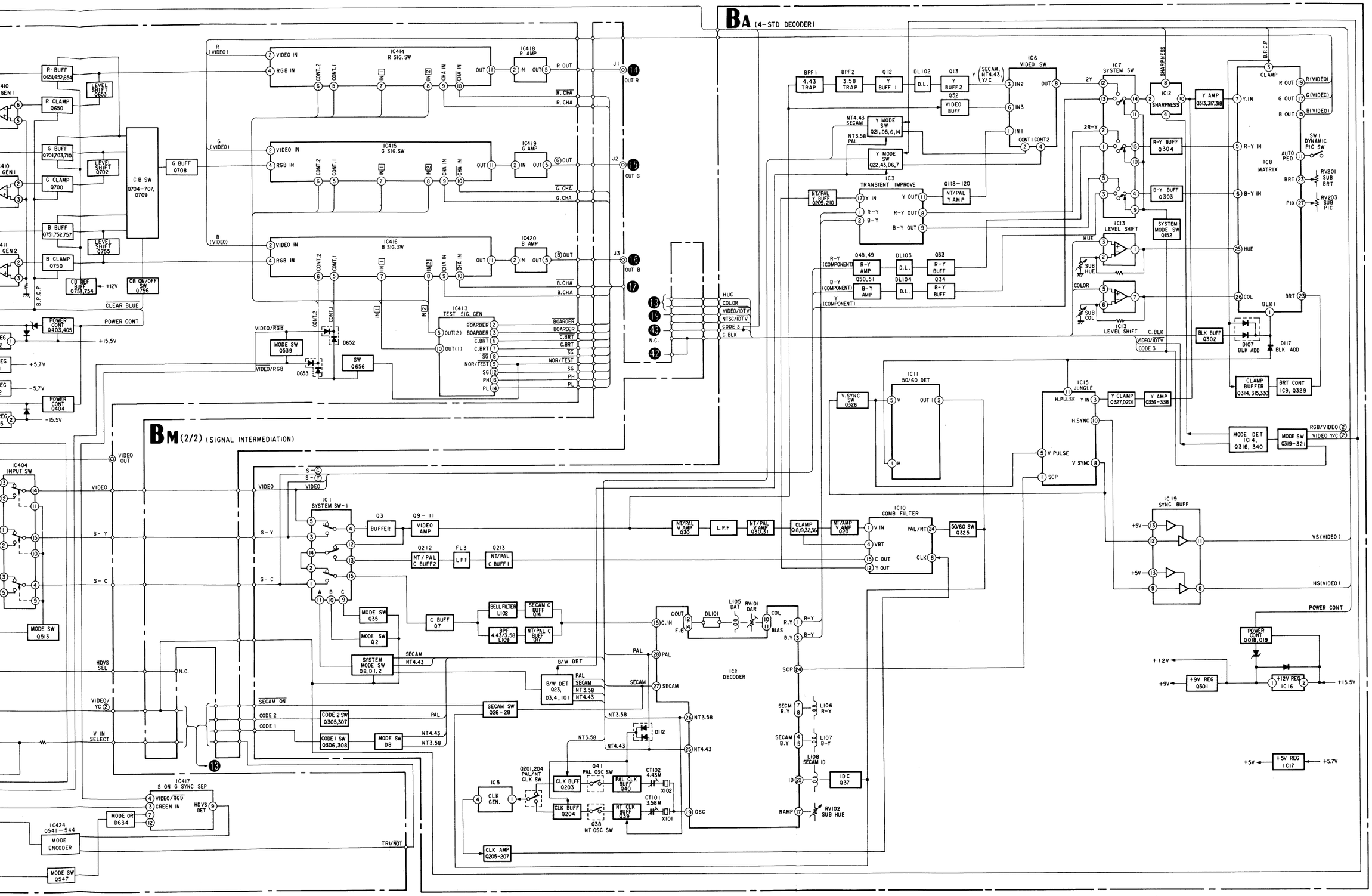
2-1. CIRCUIT BOARDS LOCATION

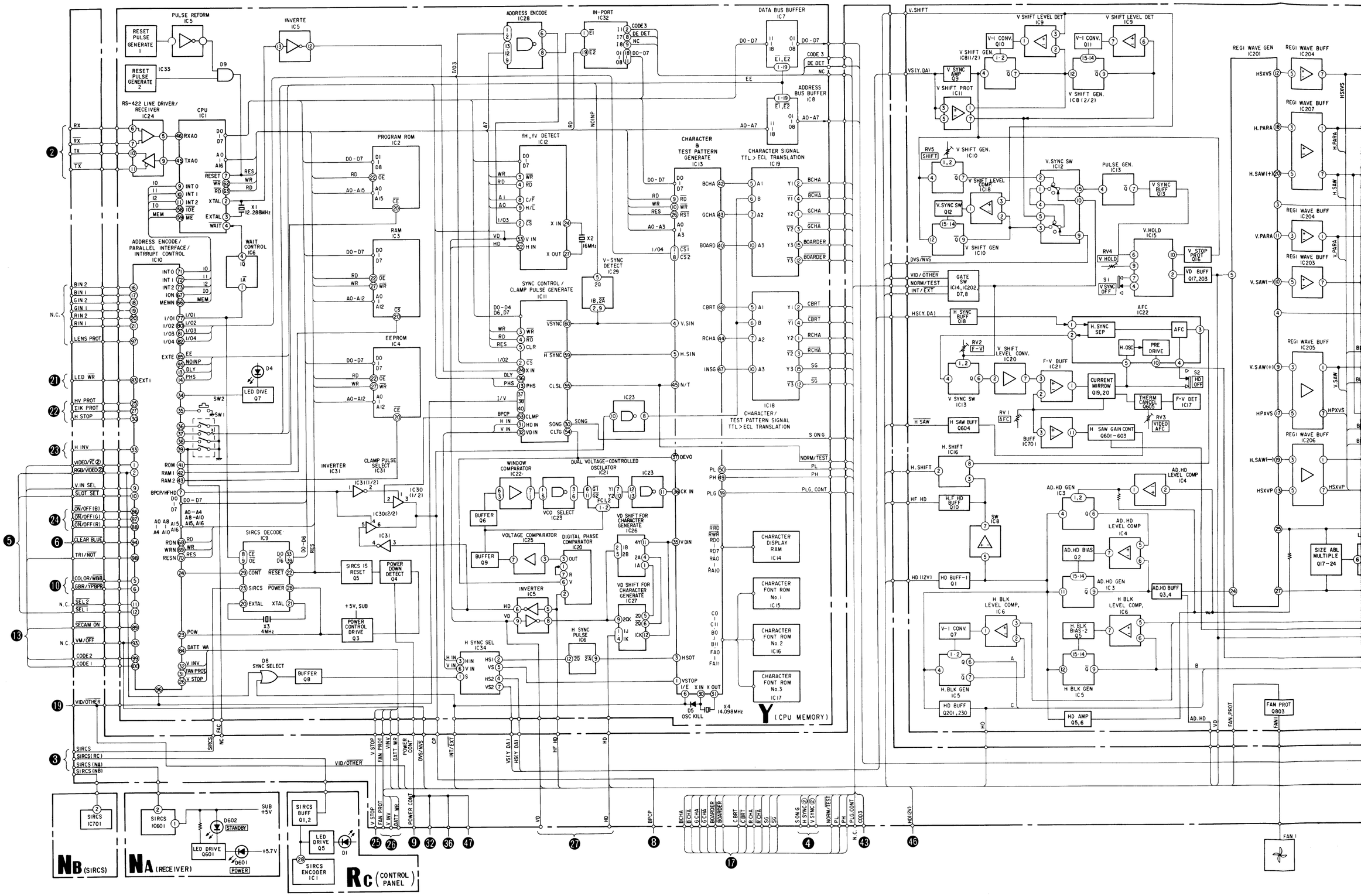


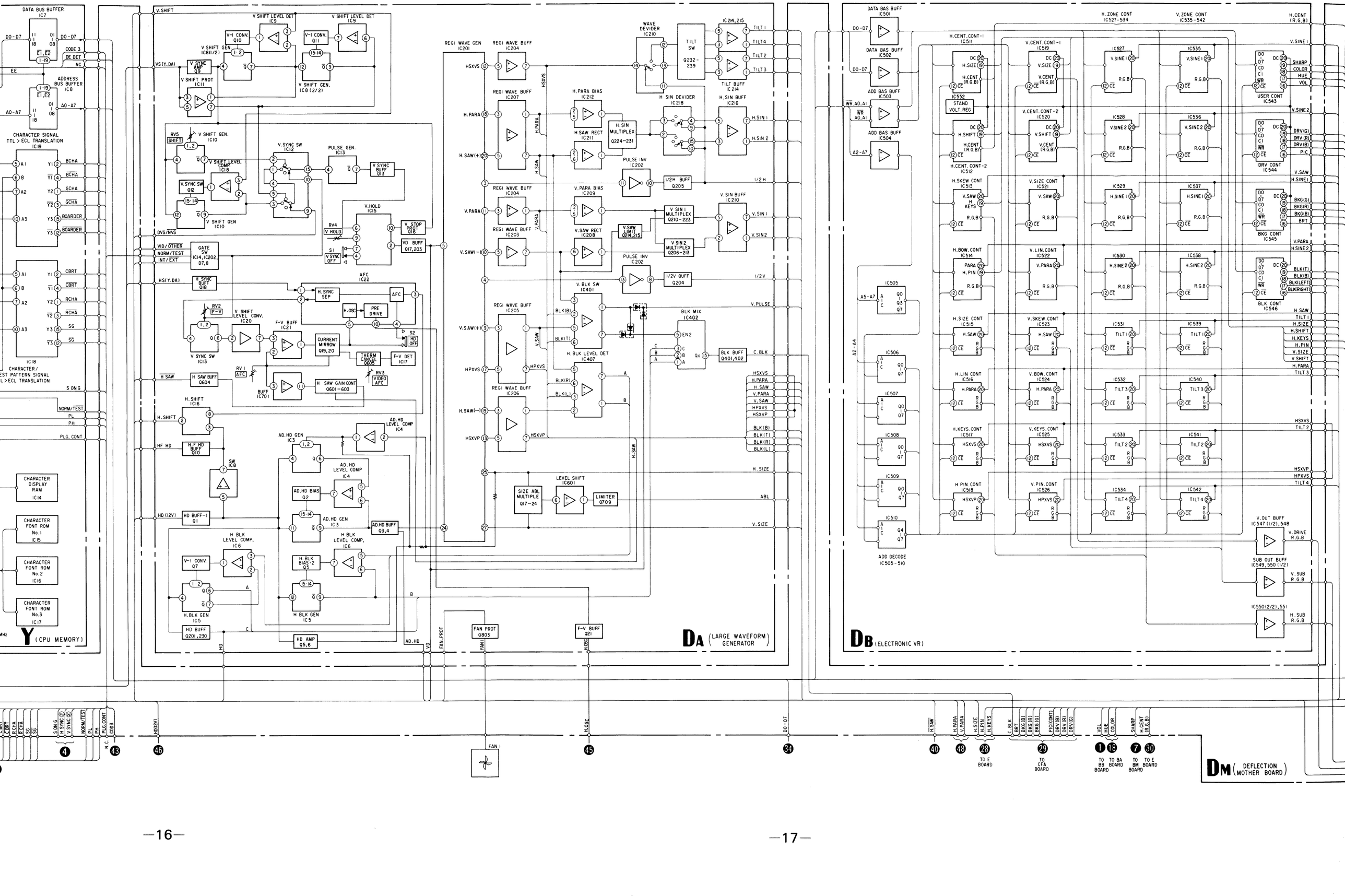


2-2. BLOCK DIAGRAMS

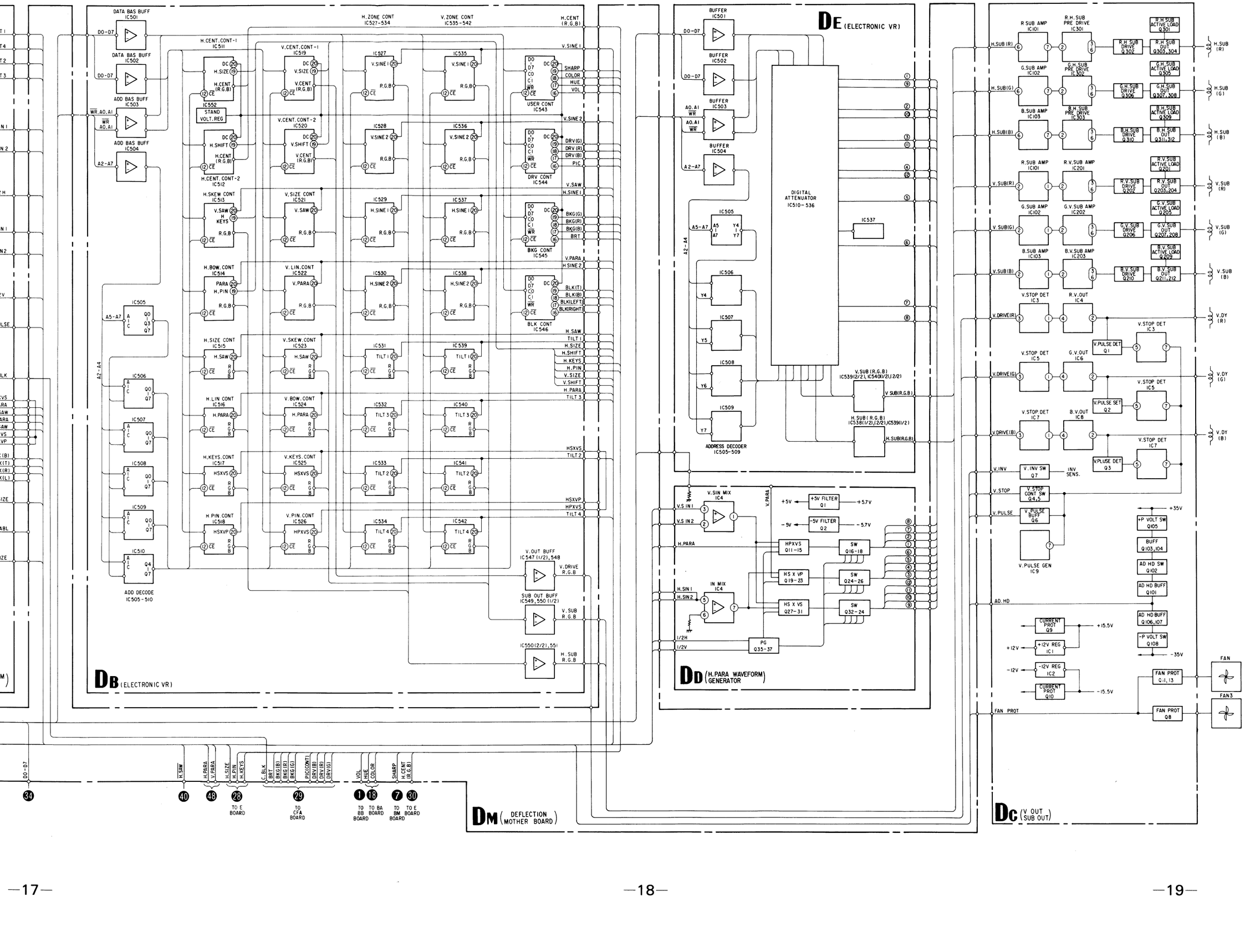



BA (4-STD DECODER)
BM (2/2) (SIGNAL INTERMEDIATION)
IC414 R SIG.SW
IC415 G SIG.SW
IC416 B SIG.SW
IC418 R AMP
IC419 G AMP
IC420 B AMP
IC413 TEST SIG. GEN
C B SW Q704~707, Q709
R BUFF Q651,652,654
G BUFF Q701,703,710
B BUFF Q751,752,757
R CLAMP Q650
G CLAMP Q700
B CLAMP Q750
LEVEL SHIFT Q653
LEVEL SHIFT Q702
LEVEL SHIFT Q755
G BUFF Q708
CB REF BUFF Q753,754
CB ON/OFF SW Q756
POWER CONT Q403,405
POWER CONT Q404
CLEAR BLUE
POWER CONT
+15.5V
+5.7V
-5.7V
-15.5V
MODE SW Q539
SW Q656
D652
D653
VIDEO/RGB
R OUT
G OUT
B OUT
R.CHA
G.CHA
B.CHA
BOARDER
C.BRT
SG
NOR/TEST
PH
PL
HUC
COLOR
VIDEO/IDTV
NTSC/IDTV
CODE 3
C.BLK
N.C.
IC6 VIDEO SW
IC7 SYSTEM SW
IC12 SHARPNESS
IC8 MATRIX
IC13 LEVEL SHIFT
IC3 TRANSIENT IMPROVE
BPF 1 4.43 TRAP
BPF 2 3.58 TRAP
Q12 Y BUFF 1
DL102
Q13 Y BUFF 2
Q52 VIDEO BUFF
Y MODE SW Q21,D5,6,14
Y MODE SW Q22,43,D6,7
NT4.43 SECAM
NT3.58 PAL
Q118~120 NT/PAL Y AMP
NT/PAL Y BUFF Q209,210
Q48,49 R-Y AMP
Q50,51 B-Y AMP
DL103
DL104
Q33 R-Y BUFF
Q34 B-Y BUFF
R-Y BUFF Q304
B-Y BUFF Q303
SYSTEM MODE SW Q152
Y AMP Q313,317,318
BLK BUFF Q302
D107 BLK ADD
D117 BLK ADD
CLAMP BUFFER Q314,315,330
BRT CONT IC9, Q329
MODE DET IC14, Q316, 340
MODE SW Q319~321
RGB/VIDEO
VIDEO Y/C
SW DYNAMIC PIC SW
RV201 SUB BRT
RV203 SUB PIC
SUB HUE
SUB COL
IC11 50/60 DET
V.SYNC SW Q326
IC15 JUNGLE
Y CLAMP Q327,D201
Y AMP Q336~338
IC10 COMB FILTER
NT/PAL V AMP Q30
L.P.F
NT/PAL V AMP Q30,31
CLAMP Q18,19,32,36
NT/AMP V AMP Q20
50/60 SW Q325
IC19 SYNC BUFF
VS(VIDEO)
HS(VIDEO)
IC1 SYSTEM SW-1
Q3 BUFFER
Q9~11 VIDEO AMP
Q212 NT/PAL C BUFF2
FL3 L.P.F
Q213 NT/PAL C BUFF1
BELL FILTER L102
SECAM C BUFF Q14
BPF 4.43/3.58 L109
NT/PAL C BUFF Q17
C BUFF Q7
MODE SW Q35
MODE SW Q2
MODE SW Q513
SYSTEM MODE SW Q8,D1,2
B/W DET Q23, D3,4,101
SECAM SW Q26~28
CODE 2 SW Q305,307
CODE 1 SW Q306,308
MODE SW D8
MODE OR D634
IC417 S ON G SYNC SEP
IC424 Q541~544 MODE ENCODER
MODE SW Q547
IC404 INPUT SW
IC2 DECODER
IC5 CLK GEN.
Q201,204 PAL/NT CLK SW
Q41 PAL OSC SW
Q38 NT OSC SW
CLK BUFF Q203
CLK BUFF Q204
PAL CLK BUFF Q40
NT CLK BUFF Q39
CT102 4.43M
CT101 3.58M
X102
X101
CLK AMP Q205~207
D112
L105 DAT
RV101 DAR
DLI01
L106 R-Y
L107 B-Y
L108 SECAM ID
IDC Q37
RV102 SUB HUE
+12V REG IC16
+9V REG Q301
+5V REG IC17
+12V
+9V
+5V
+15.5V
+5.7V
POWER CONT Q018,019
VIDEO OUT
VIDEO
S-C
S-Y
HDVS SEL
VIDEO/YC
V IN SELECT
SECAM ON
CODE 2
CODE 1
TRI/NT


PULSE REFORM IC5
RESET PULSE GENERATE 1
RESET PULSE GENERATE 2
IC33
INVERTE IC5
D9
RS-422 LINE DRIVER/ RECEIVER IC24
CPU IC1
RX
RX
TX
TX
RXA0
TXA0
INT 0
INT 1
INT 2
IOE
ME
WAIT
RES
WR
RD
X1 12.288MHz
WAIT CONTROL IC6
ADDRESS ENCODE/ PARALLEL INTERFACE/ INTRRUPT CONTROL IC10
BIN 2
BIN 1
GIN 2
GIN 1
RIN 2
RIN 1
LENS PROT
LED WR
HV PROT
SIK PROT
H STOP
H INV
VIDEO/YC
RGB/VIDEO2
V.IN SEL
SLOT SET
ON/OFF(B)
ON/OFF(G)
ON/OFF(R)
CLEAR BLUE
TRI/NOT
COLOR/WBB
GBR/YPBPR
SEL 2
SEL 1
SECAM ON
VM/OFF
CODE 2
CODE 1
VID/OTHER
EXTI
EXTE
EE
NOINP
DLY
PHS
D4
LED DIVE Q7
SW2
SW1
ROM
RAM 1
RAM 2
BPCP/HFHD
AO-A4
A8-A10
A15, A16
RDN
WRN
RESN
SIRCS DECODE IC9
X3 4MHz
SIRCS IS RESET Q5
POWER DOWN DETECT Q4
+5V, SUB
POWER CONTROL DRIVE Q3
POW
DATT WA
V INV
FAN PROT
V STOP
D8 SYNC SELECT
BUFFER Q8
SIRCS
FAC
NC
PROGRAM ROM IC2
RAM IC3
EEPROM IC4
INVERTER IC31
CLAMP PULSE SELECT IC31
IC30(1/2)
IC30(2/2)
IC31
ADDRESS ENCODE IC28
IN-PORT IC32
DATA BUS BUFFER IC7
ADDRESS BUS BUFFER IC8
CODE 3
DE DET
NC
EE
NOINP
fH, fV DETECT IC12
X2 16MHz
SYNC CONTROL/ CLAMP PULSE GENERATE IC11
V-SYNC DETECT IC29
CHARACTER & TEST PATTERN GENERATE IC13
CHARACTER SIGNAL TTL > ECL TRANSLATION IC19
IC18 CHARACTER/ TEST PATTERN SIGNAL TTL > ECL TRANSLATION
IC23
WINDOW COMPARATOR IC22
DUAL VOLTAGE-CONTROLLED OSCILLATOR IC21
VCO SELECT IC23
VOLTAGE COMPARATOR IC25
DIGITAL PHASE COMPARATOR IC20
VD SHIFT FOR CHARACTER GENERATE IC26
VD SHIFT FOR CHARACTER GENERATE IC27
INVERTER IC5
H SYNC PULSE IC6
H SYNC SEL IC34
BUFFER Q6
BUFFER Q9
D5 OSC KILL
X4 14.098MHz
CHARACTER DISPLAY RAM IC14
CHARACTER FONT ROM No.1 IC15
CHARACTER FONT ROM No.2 IC16
CHARACTER FONT ROM No.3 IC17
Y (CPU MEMORY)
V.SHIFT
V SHIFT LEVEL DET IC9
V-I CONV. Q10
V-I CONV. Q11
V SHIFT GEN IC8(1/2)
V SYNC AMP Q9
V SHIFT PROT IC11
V SHIFT GEN. IC8(2/2)
VS(Y.DA)
RV5 SHIFT
V SHIFT GEN. IC10
V.SYNC SW IC12
PULSE GEN. IC13
V SHIFT LEVEL COMP IC18
V.SYNC SW Q12
V SYNC BUFF Q13
V SHIFT GEN IC10
V.HOLD IC15
RV4 V HOLD
S1 V SYNC OFF
V STOP PROT Q16
VD BUFF Q17,203
DVS/NVS
VID/OTHER
NORM/TEST
INT/EXT
GATE SW IC14,IC202, D7,8
HS(Y.DA)
H SYNC BUFF Q18
AFC IC22
H.SYNC SEP
AFC
H.OSC
PRE DRIVE
RV2 F-V
V SHIFT LEVEL CONV. IC20
F-V BUFF IC21
CURRENT MIRROW Q19,20
THERM CANCEL Q605
F-V DET IC17
S2 HD OFF
V SYNC SW IC13
H SAW
H SAW BUFF Q604
RV1 AFC
RV3 VIDEO AFC
BUFF IC701
H SAW GAIN CONT Q601-603
H.SHIFT IC16
H.SHIFT
HF HD
H.F HD BUFF Q10
SW IC8
HD(12V)
HD BUFF-1 Q1
AD.HD GEN IC3
AD.HD LEVEL COMP IC4
AD.HD BIAS Q2
AD.HD BUFF Q3,4
H BLK LEVEL COMP, IC6
V-I CONV. Q7
H.BLK BIAS-2 Q5
H.BLK GEN IC5
HD BUFF Q201,230
HD AMP Q5,6
AD.HD
REGI WAVE GEN IC201
REGI WAVE BUFF IC204
REGI WAVE BUFF IC207
REGI WAVE BUFF IC205
REGI WAVE BUFF IC206
H.PARA
H.SAW(+)
V.PARA
V.SAW(-)
V.SAW(+)
HPXVS
H.SAW(-)
HSXVP
SIZE ABL MULTIPLE Q17-24
FAN PROT Q803
FAN 1
SIRCS IC701
SIRCS IC601
SUB +5V
D602 STANDBY
LED DRIVE Q601
+5.7V
D601 POWER
NB (SIRCS)
NA (RECEIVER)
SIRCS BUFF Q1,2
LED DRIVE Q5
D1
SIRCS ENCODER IC1
Rc (CONTROL PANEL)

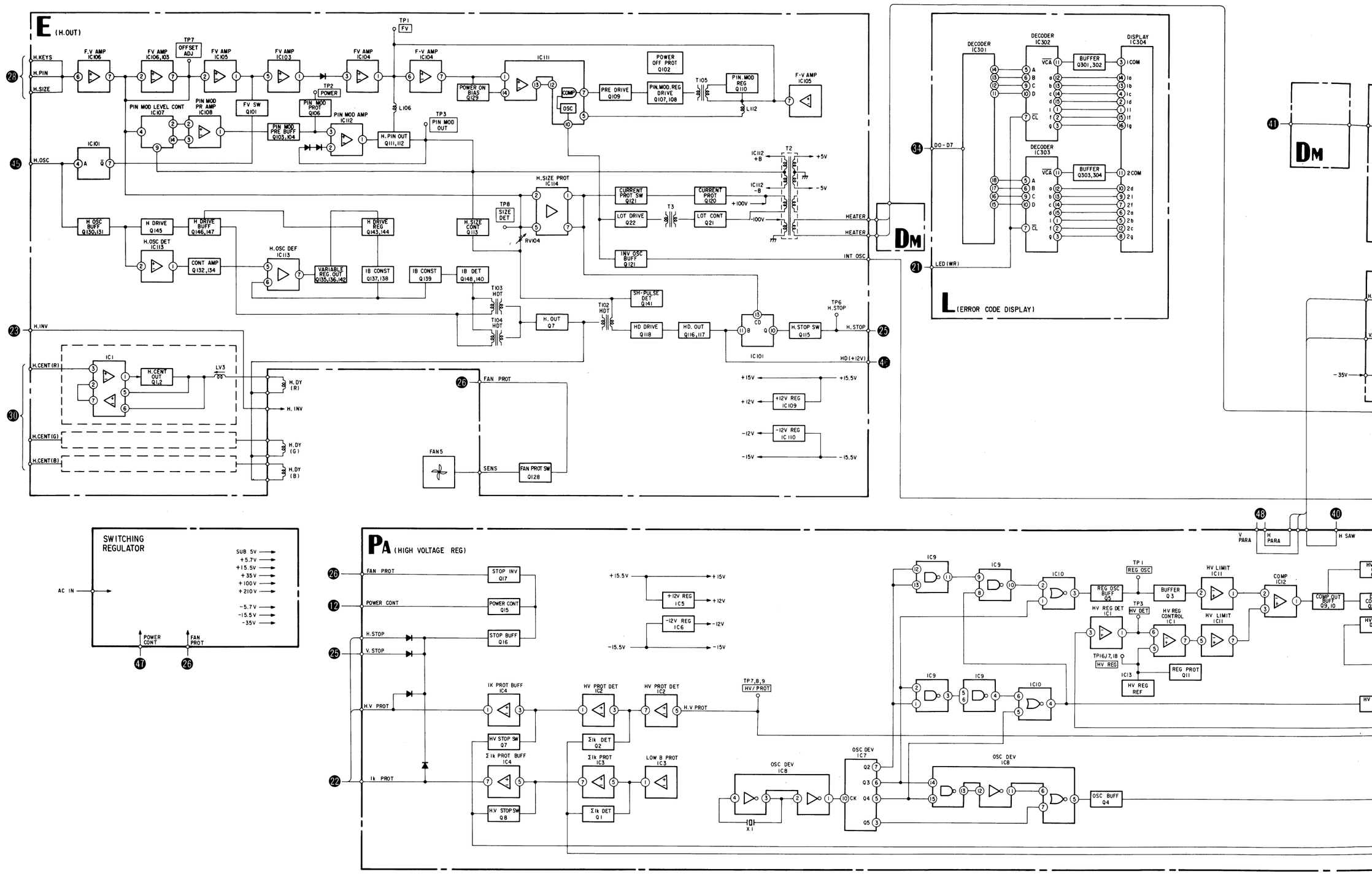

DATA BUS BUFFER IC7
ADDRESS BUS BUFFER IC8
CHARACTER SIGNAL TTL > ECL TRANSLATION IC19
IC18 CHARACTER/ TEST PATTERN SIGNAL ECL > ECL TRANSLATION
CHARACTER DISPLAY RAM IC14
CHARACTER FONT ROM No.1 IC15
CHARACTER FONT ROM No.2 IC16
CHARACTER FONT ROM No.3 IC17
Y (CPU MEMORY)
V.SHIFT
V SHIFT LEVEL DET IC9
V SHIFT GEN. IC8II/2I
V SHIFT GEN. IC8 (2/2)
V SHIFT PROT IC11
V SHIFT GEN. IC10
V SHIFT LEVEL COMP. IC18
V.SYNC SW IC12
PULSE GEN. IC13
V SYNC BUFF Q13
V.HOLD IC15
V.STOP PROT Q16
VD BUFF Q17,203
GATE SW IC14,IC202, D7,8
H SYNC BUFF Q18
AFC IC22
H.SYNC SEP
H.OSC
PRE DRIVE
V SHIFT LEVEL CONV. IC20
F-V BUFF IC21
CURRENT MIRROW Q19,20
THERM CANCEL Q605
F-V DET IC17
H SAW BUFF Q604
H SAW GAIN CONT Q601~603
BUFF IC701
H.SHIFT IC16
H.F HD BUFF Q10
AD.HD GEN IC3
AD.HD LEVEL COMP IC4
AD.HD BIAS Q2
HD BUFF-1 Q1
HD BUFF Q201,230
HD AMP Q5,6
H BLK LEVEL COMP, IC6
H BLK BIAS-2 Q5
H BLK GEN IC5
REGI WAVE GEN IC201
REGI WAVE BUFF IC204
REGI WAVE BUFF IC207
REGI WAVE BUFF IC204
REGI WAVE BUFF IC203
REGI WAVE BUFF IC205
REGI WAVE BUFF IC206
H.PARA BIAS IC212
H.SAW RECT IC211
V.PARA BIAS IC209
V.SAW RECT IC208
V.BLK SW IC401
H.BLK LEVEL DET IC407
WAVE DEVIDER IC210
TILT SW Q232~239
TILT BUFF IC214
H SIN DEVIDER IC218
H SIN BUFF IC216
H.SIN MULTIPLEX Q224~231
PULSE INV IC202
1/2H BUFF Q205
V SIN1 MULTIPLEX Q210~223
V SIN2 MULTIPLEX Q206~213
V.SAW LIMIT Q214,215
V SIN BUFF IC210
1/2V BUFF Q204
BLK MIX IC402
BLK BUFF Q401,402
SIZE ABL MULTIPLE Q17~24
LEVEL SHIFT IC601
LIMITER Q709
DA (LARGE WAVEFORM GENERATOR)
DATA BAS BUFF IC501
DATA BAS BUFF IC502
ADD BAS BUFF IC503
ADD BAS BUFF IC504
STAND VOLT.REG IC552
ADD DECODE IC505~510
H.CENT.CONT-1 IC511
H.CENT.CONT-2 IC512
H.SKEW CONT IC513
H.BOW.CONT IC514
H.SIZE CONT IC515
H.LIN CONT IC516
H.KEYS.CONT IC517
H.PIN CONT IC518
V.CENT.CONT-1 IC519
V.CENT.CONT-2 IC520
V.SIZE CONT IC521
V.LIN.CONT IC522
V.SKEW.CONT IC523
V.BOW.CONT IC524
V.KEYS.CONT IC525
V.PIN.CONT IC526
H.ZONE CONT IC527~534
V.ZONE CONT IC535~542
H.CENT (R,G,B)
USER CONT IC543
DRV CONT IC544
BKG CONT IC545
BLK CONT IC546
V.OUT BUFF IC547 (1/2),548
SUB OUT BUFF IC549,550 (1/2)
IC550(2/2),551
DB (ELECTRONIC VR)
FAN PROT Q803
FAN
DM (DEFLECTION MOTHER BOARD)
TO E BOARD
TO CFA BOARD
TO BB BOARD
TO BA BOARD
TO BM BOARD
TO E BOARD

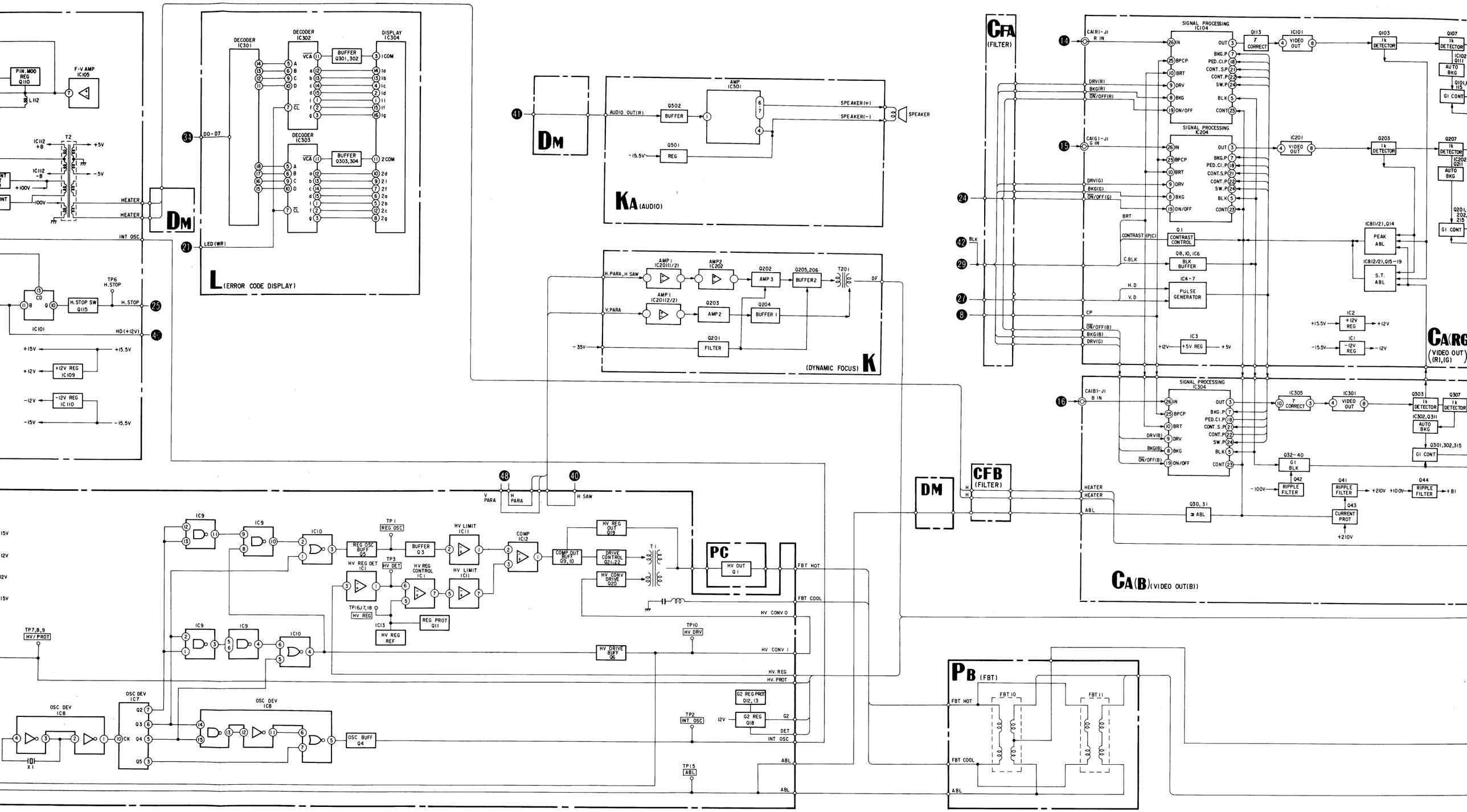
VPH-1272QM/Q
RM-1271
VPH-1272QM/Q
RM-1271

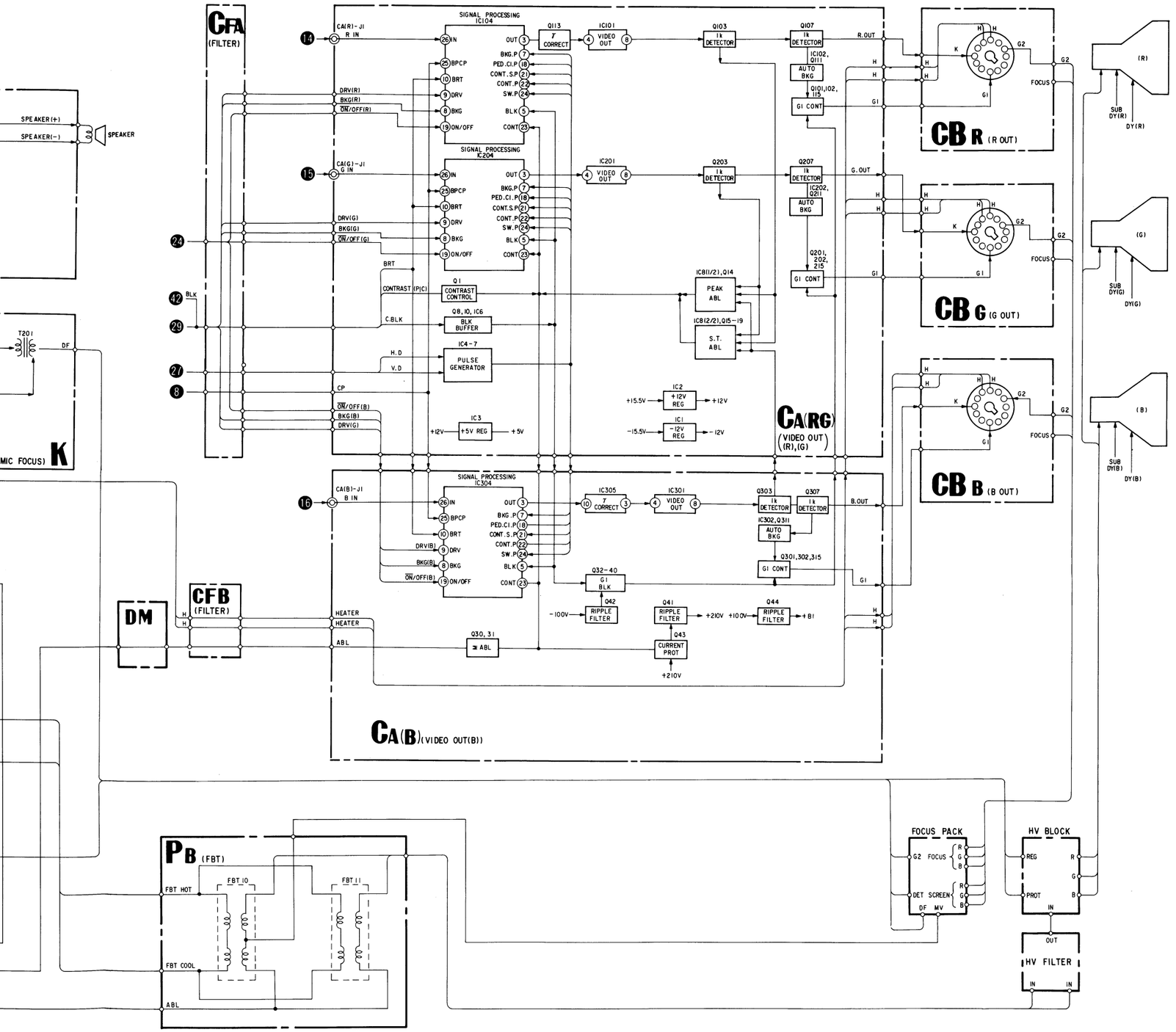


VPH-1272QM/Q
RM-1271

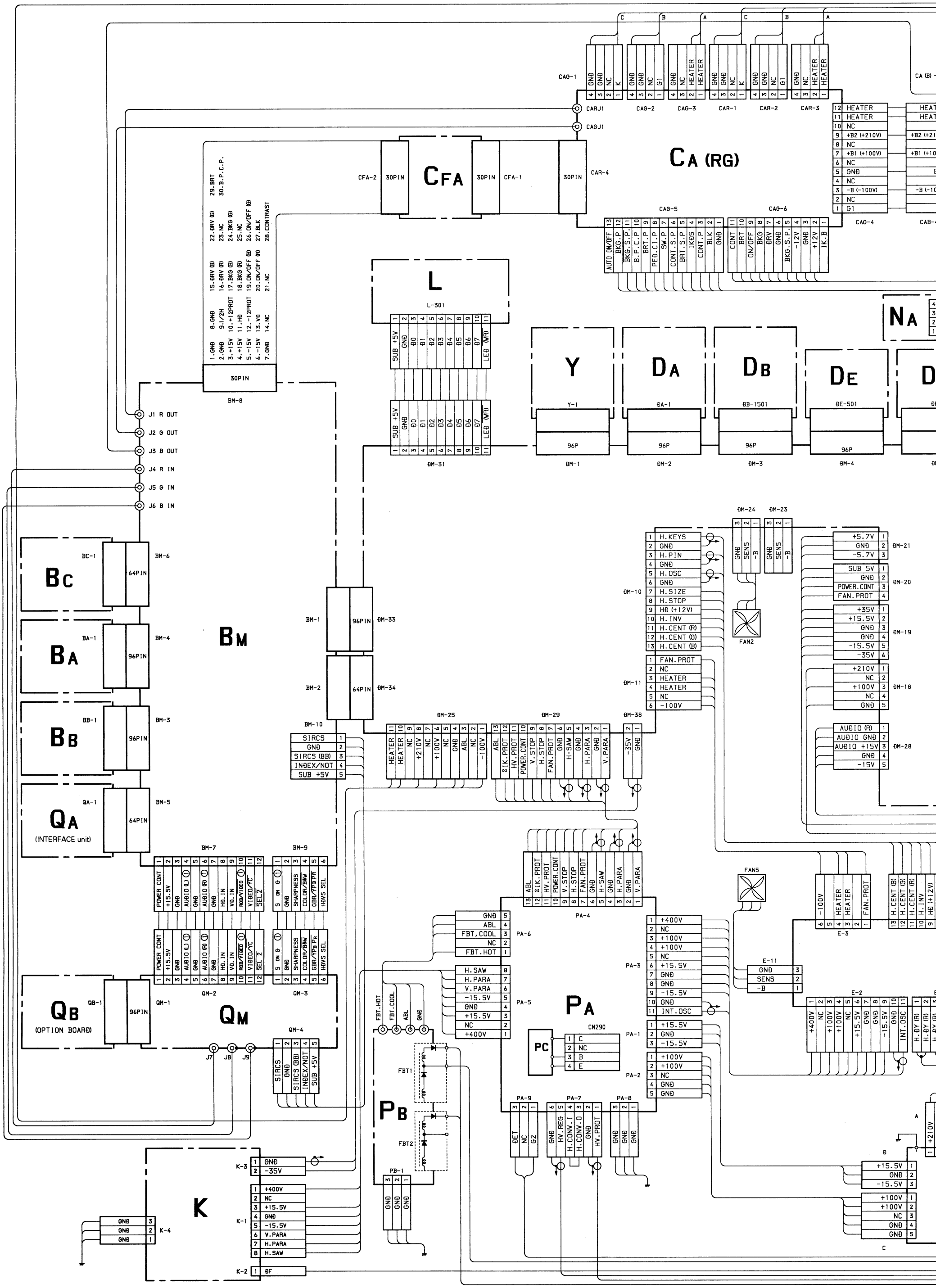
VPH-1272QM/Q
RM-1271

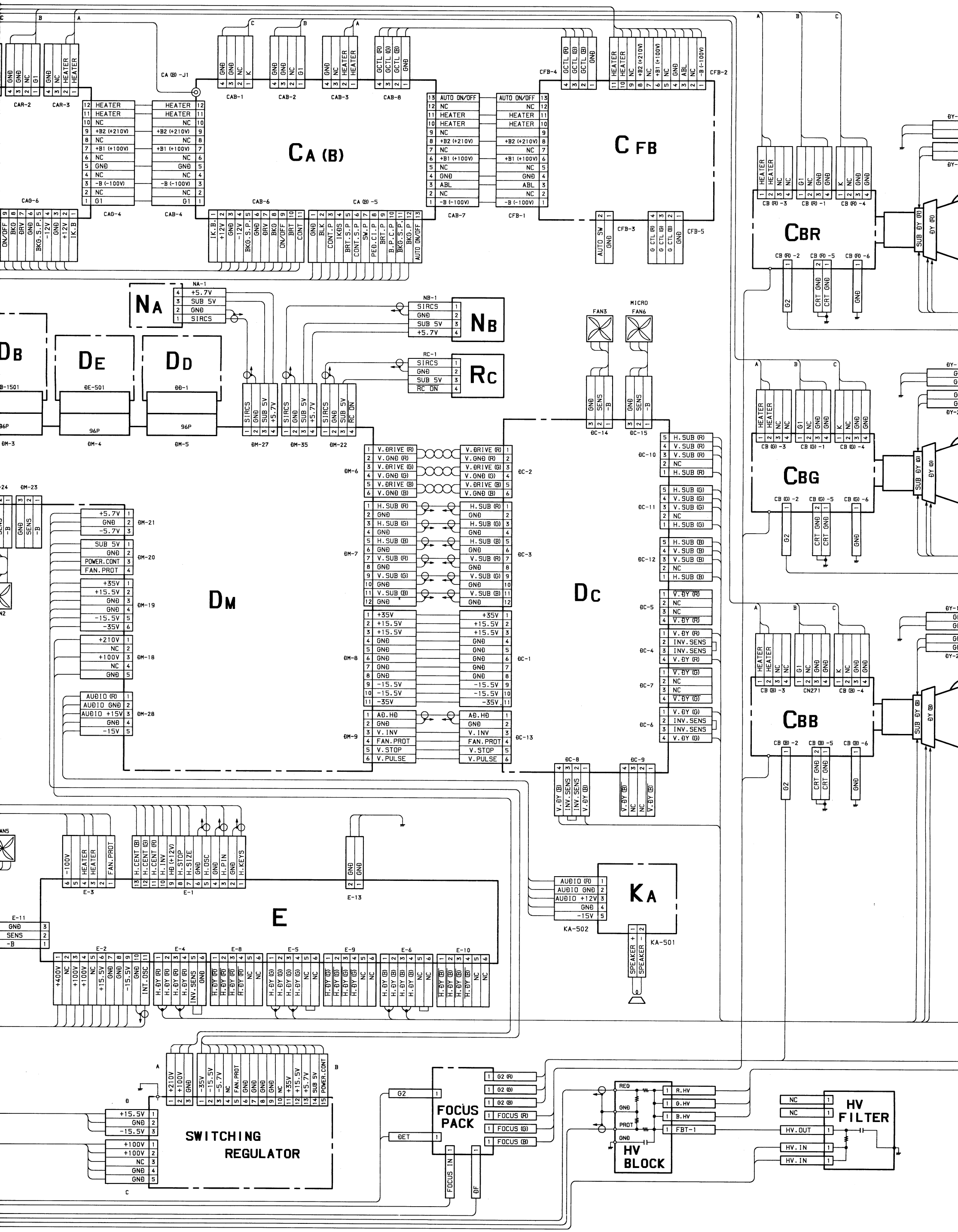


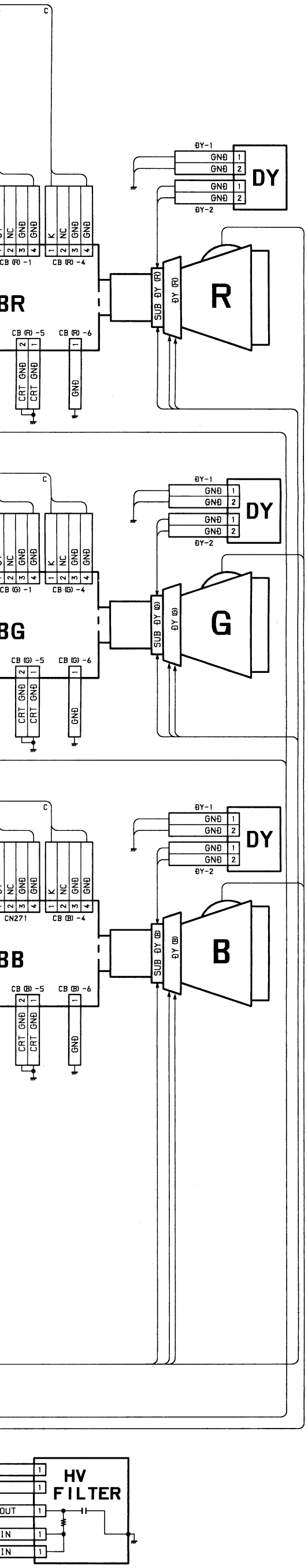

DM
L (ERROR CODE DISPLAY)
KA (AUDIO)
K (DYNAMIC FOCUS)
PC
CFA (FILTER)
CFB (FILTER)
CA(B) (VIDEO OUT(B))
PB (FBT)
SIGNAL PROCESSING IC104
SIGNAL PROCESSING IC204
SIGNAL PROCESSING IC304
PEAK ABL
S.T. ABL
PULSE GENERATOR
CONTRAST CONTROL
BLK BUFFER
RIPPLE FILTER
CURRENT PROT
HV OUT Q1
FBT HOT
FBT COOL
HV CONV 0
HV CONV 1
HV REG
HV PROT
ABL
INT OSC
DECODER IC301
DECODER IC302
DECODER IC303
DISPLAY IC304
BUFFER Q301,302
BUFFER Q303,304
AMP IC501
SPEAKER
AMP 1 IC201(1/2)
AMP 2 IC202
AMP 1 IC201(2/2)
AMP 3
BUFFER 2
BUFFER 1
FILTER
REG
BUFFER
PIN. MOD REG Q110
F-V AMP IC105
H. STOP SW Q115
+12V REG IC109
-12V REG IC110
OSC DEV IC7
OSC DEV IC8
OSC BUFF Q4
HV LIMIT IC11
COMP IC12
HV REG OUT Q19
DRIVE CONTROL Q21,22
HV CONV DRIVE Q20
HV DRIVE BUFF Q6
REG PROT Q11
HV REG REF
REG OSC BUFF Q5
BUFFER Q3
HV REG DET IC1
HV REG CONTROL IC1
G2 REG PROT Q12,13
G2 REG Q18
+5V REG
+12V REG
-12V REG
+210V
+100V
-100V
+15V
+12V
-12V
-15V
-15.5V
+15.5V
-35V
-15.5V
+5V
+12V
-12V
+210V
+100V
+81


CFA (FILTER)
SIGNAL PROCESSING IC104
CA(R)-J1 R IN
DRV(R)
BKG(R)
ON/OFF(R)
IC101 VIDEO OUT
Q113 CORRECT
Q103 DETECTOR
Q107 DETECTOR
R.OUT
IC102, 0111 AUTO BKG
Q101,102, 115 G1 CONT
CB R (R OUT)
SIGNAL PROCESSING IC204
CA(G)-J1 G IN
DRV(G)
BKG(G)
ON/OFF(G)
IC201 VIDEO OUT
Q203 DETECTOR
Q207 DETECTOR
G.OUT
IC202, 0211 AUTO BKG
Q201, 202, 215 G1 CONT
CB G (G OUT)
BRT
CONTRAST (P)(C)
Q1 CONTRAST CONTROL
BLK
C.BLK
Q8, 10, IC6 BLK BUFFER
IC8(1/2), Q14 PEAK ABL
IC8(2/2), Q15-19 S.T. ABL
IC4-7 PULSE GENERATOR
H.D
V.D
CP
ON/OFF(B)
BKG(B)
DRV(G)
IC2 +12V REG
IC1 -12V REG
+15.5V
-15.5V
+12V
-12V
+5V
CA(RG) (VIDEO OUT) (R),(G)
SIGNAL PROCESSING IC304
CA(B)-J1 B IN
DRV(B)
BKG(B)
ON/OFF(B)
IC305 CORRECT
IC301 VIDEO OUT
Q303 DETECTOR
Q307 DETECTOR
B.OUT
IC302,0311 AUTO BKG
Q301,302,315 G1 CONT
CB B (B OUT)
Q32-40 G1 BLK
Q42 RIPPLE FILTER
Q41 RIPPLE FILTER
Q44 RIPPLE FILTER
Q43 CURRENT PROT
-100V
+210V
+100V
+B1
Q30, 31 ABL
CFB (FILTER)
DM
HEATER
HEATER
ABL
CA(B) (VIDEO OUT(B))
SPEAKER(+)
SPEAKER(-)
SPEAKER
T201
DF
MIC FOCUS) K
PB (FBT)
FBT HOT
FBT COOL
ABL
FBT I0
FBT I1
FOCUS PACK
G2 FOCUS
DET SCREEN
DF MV
HV BLOCK
REG
PROT
IN
OUT
HV FILTER
(R)
(G)
(B)
SUB DY(R)
DY(R)
SUB DY(G)
DY(G)
SUB DY(B)
DY(B)
FOCUS
G2
G1
K
H

2-3. FRAME SCHEMATIC DIAGRAMS




CA (B)
CFB
CBR
CBG
CBB
DM
DC
DB
DE
DD
NA
NB
RC
KA
E
SWITCHING REGULATOR
FOCUS PACK
HV BLOCK
HV FILTER
CA (B) -J1
CAR-2
CAR-3
CAB-1
CAB-2
CAB-3
CAB-8
CAB-4
CAB-6
CAB-7
CA (B) -5
CFB-1
CFB-2
CFB-3
CFB-4
CFB-5
CB (R) -1
CB (R) -2
CB (R) -3
CB (R) -4
CB (R) -5
CB (R) -6
CB (G) -1
CB (G) -2
CB (G) -3
CB (G) -4
CB (G) -5
CB (G) -6
CB (B) -1
CB (B) -2
CB (B) -3
CB (B) -4
CB (B) -5
CB (B) -6
CN271
NA-1
NB-1
RC-1
FAN3
FAN6
MICRO
ÐM-3
ÐM-4
ÐM-5
ÐM-27
ÐM-35
ÐM-22
ÐM-6
ÐM-7
ÐM-8
ÐM-9
ÐM-21
ÐM-20
ÐM-19
ÐM-18
ÐM-28
ÐC-1
ÐC-2
ÐC-3
ÐC-4
ÐC-5
ÐC-6
ÐC-7
ÐC-8
ÐC-9
ÐC-10
ÐC-11
ÐC-12
ÐC-13
ÐC-14
ÐC-15
KA-501
KA-502
E-1
E-2
E-3
E-4
E-5
E-6
E-8
E-9
E-10
E-11
E-13
ÐET
ÐF
FOCUS IN
SUB ÐY (R)
ÐY (R)
SUB ÐY (G)
ÐY (G)
SUB ÐY (B)
ÐY (B)
G2
CRT GNÐ
GNÐ



2-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms, 1/4W in resistance, 1/10W in chip resistance.
  kΩ=1000Ω, MΩ=1000kΩ
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.

- The components identified by ⋈ in this basic schematic diagrams have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment untill the specified value is achieved. (Refer to R1, R4. R29, R30, R33, R34, R131, R132, adjust on Page 6~9.)

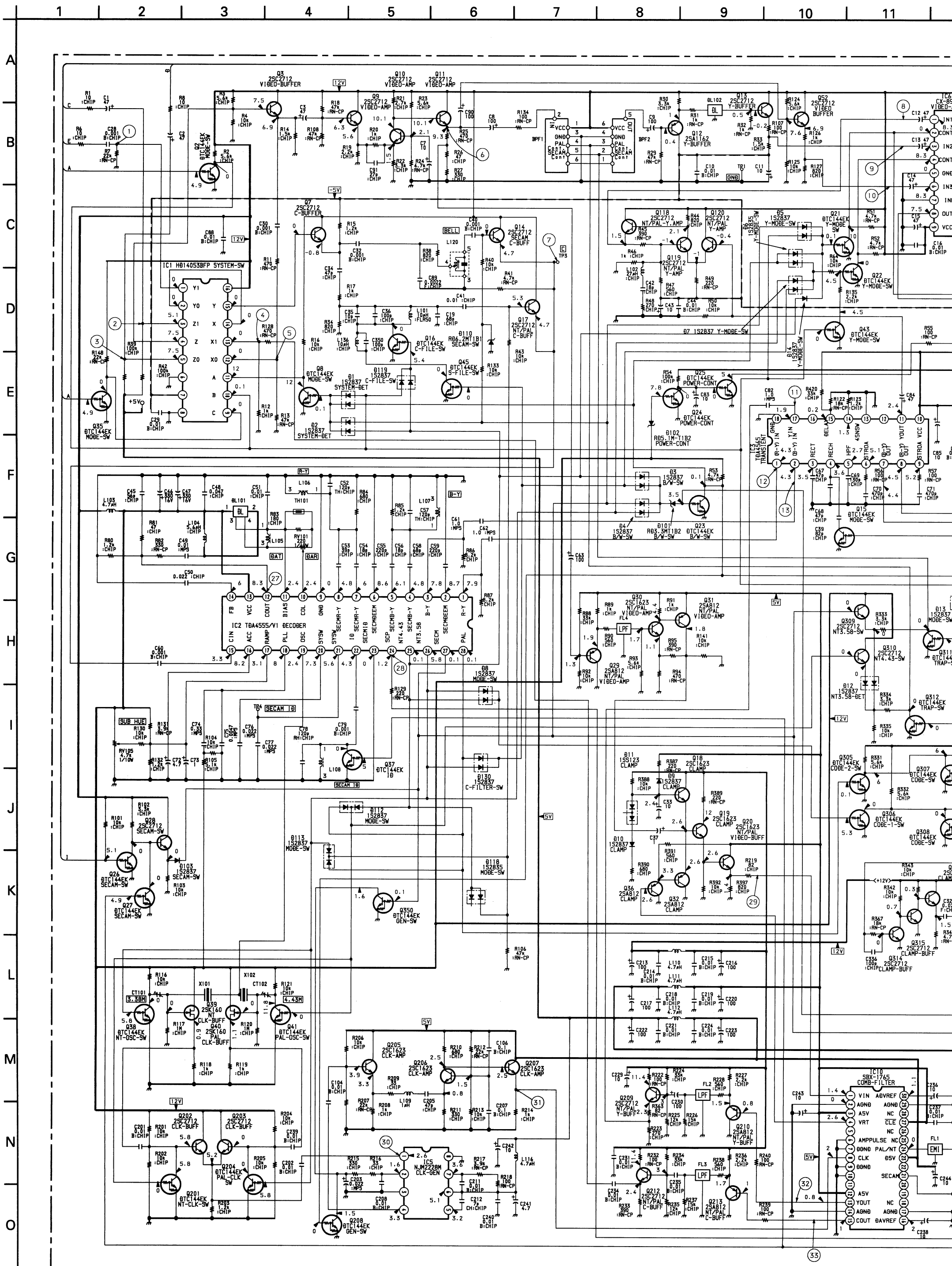
Part replaced(◪)	Adjustment(⋈)
IC2, Q7, D9, D12, C13, R20, R21, R22. R23, R24, R33, R34, R35, R36, R82, (PA BOARD) PA MOUNT HV BLOCK	HV HOLD DOWN (R33,R34)
IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13,R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1,(PA BOARD) PA MOUNT, PB MOUNT HV BLOCK	HV REGULATION (R131,R132)
C2, IC3, IC5, Q1, Q2, Q7, Q8, D4. D5, D9, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R20, R21, R22, R23, R24, R43, R44, R45, R46, R47, R82, R88, R121. R122, (PA BOARD), R143, R144 R733, (DA BOARD) PA MOUNT, PB MOUNT	BEAM CURRENT PROTECTOR (R1,R4)
IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R29, R30, R31, R88, R95, (PA BOARD) PA MOUNT	LOW B PROTECTOR (R29,R30)

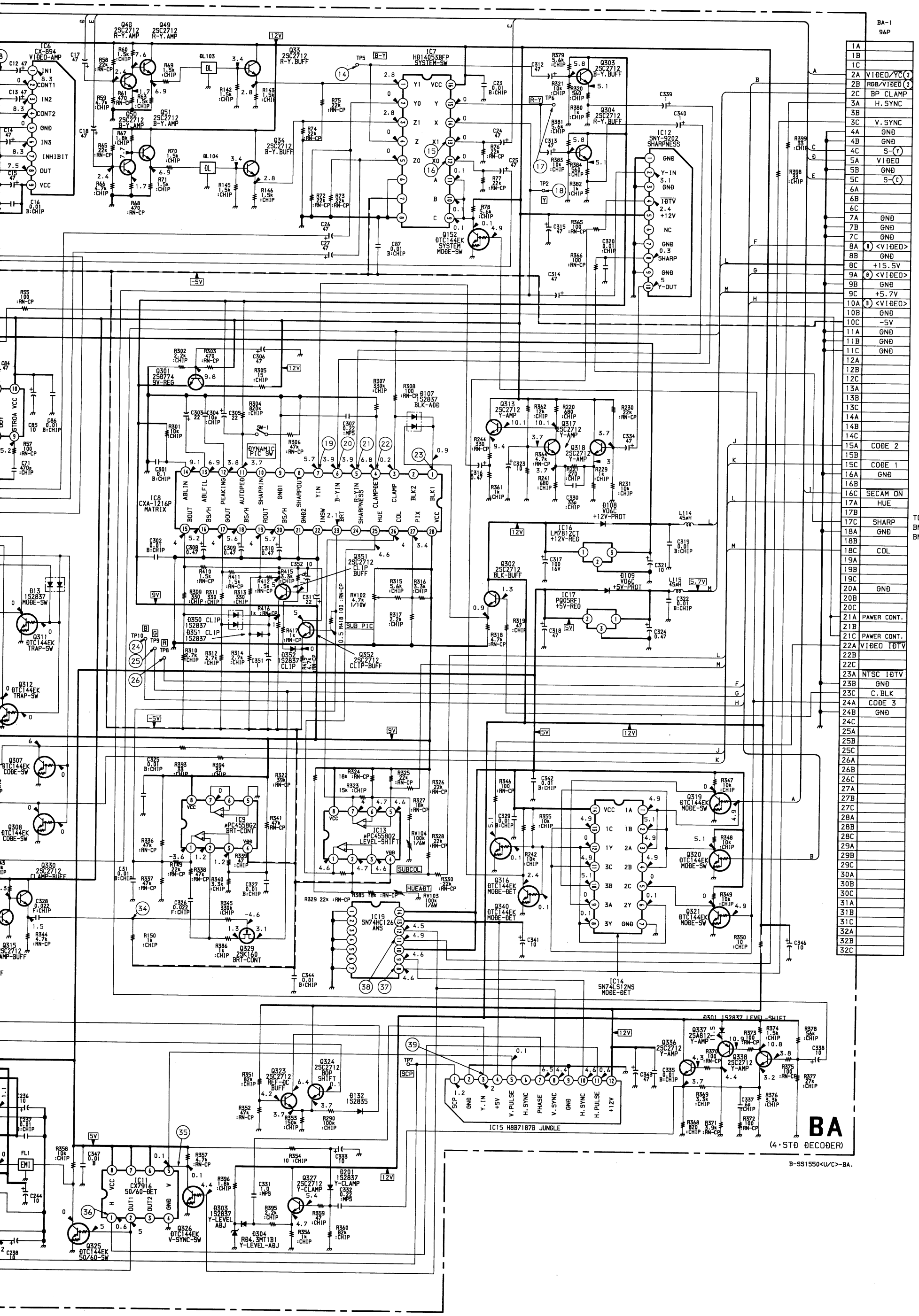
Voltage value is the reference value between it and the earth, when NTSC 3.58 color bar signal is received from color bar generator (digital multi-meter used : 10M ohms/V DC).

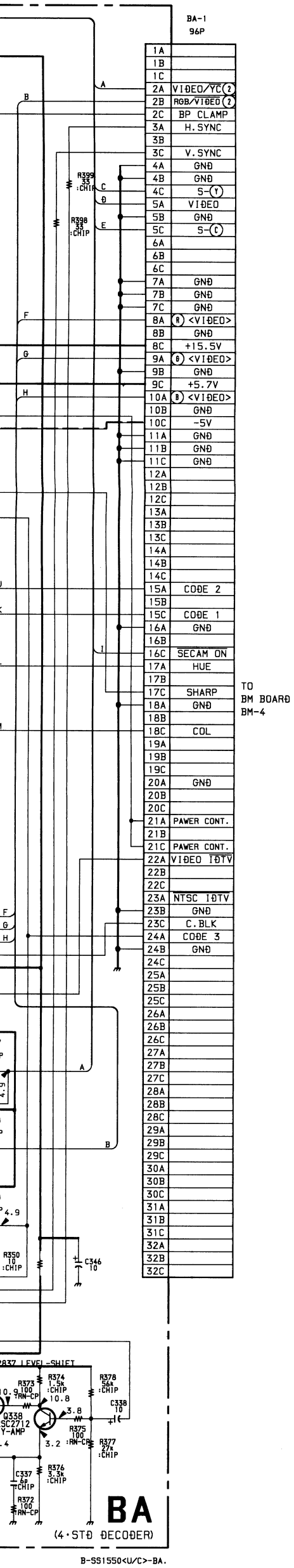
- Displays a list of BB, BA board modes.
  (PAL, SECAM, NTSC 3.58, NTSC 4.43)
  Display a list of existing voltages, when board E has issued a white pattern of internal signals.
- Unit of voltage values is V (volt)
- ✲ : Measurement disabled.
- ▬▬ : B+ line
- ■ ■ ■ : B− line
  (Actual measured value may be different).
- Circled numbers are waveform references.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE


IC1 HD14053BFP SYSTEM-SW
IC2 TDA4555/V1 DECODER
IC10 SBX-1765 COMB-FILTER
IC3 TBA2565 TRANSIENT
IC6 CX-89
Q3 2SC2712 VIDEO-BUFFER
Q9 2SC2712 VIDEO-AMP
Q10 2SC2712 VIDEO-AMP
Q11 2SC2712 VIDEO-AMP
Q52 2SC2712 VIDEO BUFFER
Q13 2SC2712 Y-BUFFER
Q12 2SA1162 Y-BUFFER
Q7 2SC2712 C-BUFFER
Q14 2SC2712 SECAM C-BUFF
Q17 2SC2712 NT/PAL C-BUFF
Q16 DTC144EK C-FILE-SW
Q45 DTC144EK S-FILE-SW
Q8 DTC144EK MODE-SW
Q2 DTC144EK MODE-SW
Q35 DTC144EK MODE-SW
Q118 2SC2712 NT/PAL-Y.AMP
Q119 2SC2712 NT/PAL Y-AMP
Q120 2SC2712 NT/PAL Y-AMP
Q5 1S2837 Y-MODE-SW
Q21 DTC144EK Y-MODE SW
Q22 DTC144EK Y-MODE-SW
Q43 DTC144EK Y-MODE-SW
Q25 DTC144EK POWER-CONT
Q24 DTC144EK POWER-CONT
Q1 1S2837 SYSTEM-DET
Q2 1S2837 SYSTEM-DET
D119 1S2837 C-FILE-SW
D110 RD6.2M1B1 SECAM-SW
D102 RD5.1M-T1B2 POWER-CONT
D3 1S2837 B/W-SW
D4 1S2837 B/W-SW
D101 RD3.3M1B2 B/W-SW
Q23 DTC144EK B/W-SW
Q15 DTC144EK MODE-SW
Q30 2SC1623 NT/PAL VIDEO-AMP
Q31 2SA812 NT/PAL VIDEO-AMP
Q29 2SA812 NT/PAL VIDEO-AMP
Q309 2SC2712 NT3.58-SW
Q310 2SC2712 NT4.43-SW
Q312 DTC144EK TRAP-SW
Q311 DTC144 TRAP-S
D13 1S2837 MODE-SW
D12 1S2837 NT3.58-DET
Q305 DTC144EK CODE-2-SW
Q307 DTC144EK CODE-SW
Q306 DTC144EK CODE-1-SW
Q308 DTC144EK CODE-SW
D11 1SS123 CLAMP
Q18 2SC1623 CLAMP
D9 1S2837 CLAMP
Q19 2SC1623 CLAMP
Q20 2SC1623 NT/PAL VIDEO-BUFF
D10 1S2837 CLAMP
Q36 2SA812 CLAMP
Q32 2SA812 CLAMP
Q314 2SC2712 CLAMP-BUFF
Q315 2SC2712 CLAMP-BUFF
D7 1S2837 Y-MODE-SW
D8 1S2837 MODE-SW
D130 1S2837 C-FILTER-SW
D112 1S2837 MODE-SW
D113 1S2837 MODE-SW
D118 1S2835 MODE-SW
D103 1S2837 SECAM-SW
Q26 DTC144EK SECAM-SW
Q27 DTC144EK SECAM-SW
Q350 DTC144EK GEN-SW
Q208 DTC144EK GEN-SW
Q201 DTC144EK NT-CLK-SW
Q202 2SC2712 CLK-BUFF
Q203 2SC2712 CLK-BUFF
Q204 DTC144EK PAL-CLK SW
Q38 DTC144EK NT-OSC-SW
Q41 DTC144EK PAL-OSC-SW
Q39 2SK160 NT CLK-BUFF
Q40 2SK160 PAL CLK-BUFF
Q205 2SC1623 CLK-AMP
Q206 2SC1623 CLK-AMP
Q207 2SC1623 CLK-AMP
Q209 2SC2712 NT/PAL Y-BUFF
Q210 2SA812 NT/PAL Y-BUFF
Q212 2SC2712 NT/PAL C-BUFF
Q213 2SA812 NT/PAL C-BUFF
IC5 NJM2228M CLK-GEN
SUB HUE
TH101
RV101 220 1/4W
RV105 4.7k 1/10W
L101 10uH FLR50
L104 5.6uH
L105 1mH
L106 3
L107 3
L108
L120
L134 10uH
L102 27mH
L103 4.7uH
L109 1mH
L110 4.7uH
L111 4.7uH
L112 4.7uH
L116 4.7uH
TP3
TB1
TB4
FL1
FL2
FL3
FL4
BELL
GND
12V
5V
-5V
+5V
R-Y
B-Y
SECAM ID
DAT
DAR
BPF1
BPF2
LPF
DL
EMI
CT101 3.38M
CT102 4.43M
X101
X102


12 13 14 15 16 17 18 19 20 21 22
BA-1
96P
IC6 CX-894 VIDEO-AMP
IC7 HD14053BFP SYSTEM-SW
IC8 CXA-1216P MATRIX
IC9 μPC4558G2 BRT-CONT
IC11 CX7916 50/60-DET
IC12 SNY-9202 SHARPNESS
IC13 μPC4558G2 LEVEL-SHIFT
IC14 SN74LS12NS MODE-DET
IC15 H8B7187B JUNGLE
IC16 LM7812CT +12V-REG
IC17 PQ05RF1 +5V-REG
IC19 SN74HC126 ANS
Q152 DTC144EK SYSTEM MODE-SW
Q301 2SD774 9V-REG
Q303 2SC2712 B-Y.BUFF
Q304 2SC2712 R-Y.BUFF
Q313 2SC2712 Y-AMP
Q317 2SC2712 Y-AMP
Q318 2SC2712 Y-AMP
Q319 DTC144EK MODE-SW
Q320 DTC144EK MODE-SW
Q321 DTC144EK MODE-SW
Q329 2SK160 BRT-CONT
Q330 2SC2712 CLAMP-BUFF
Q336 2SC2712 Y-AMP
Q337 2SA812 Y-AMP
Q338 2SC2712 Y-AMP
Q340 DTC144EK MODE-DET
TO BM BOARD BM-4
BA (4·STD DECODER)
B-SS1550<U/C>-BA.
—30—
—31—



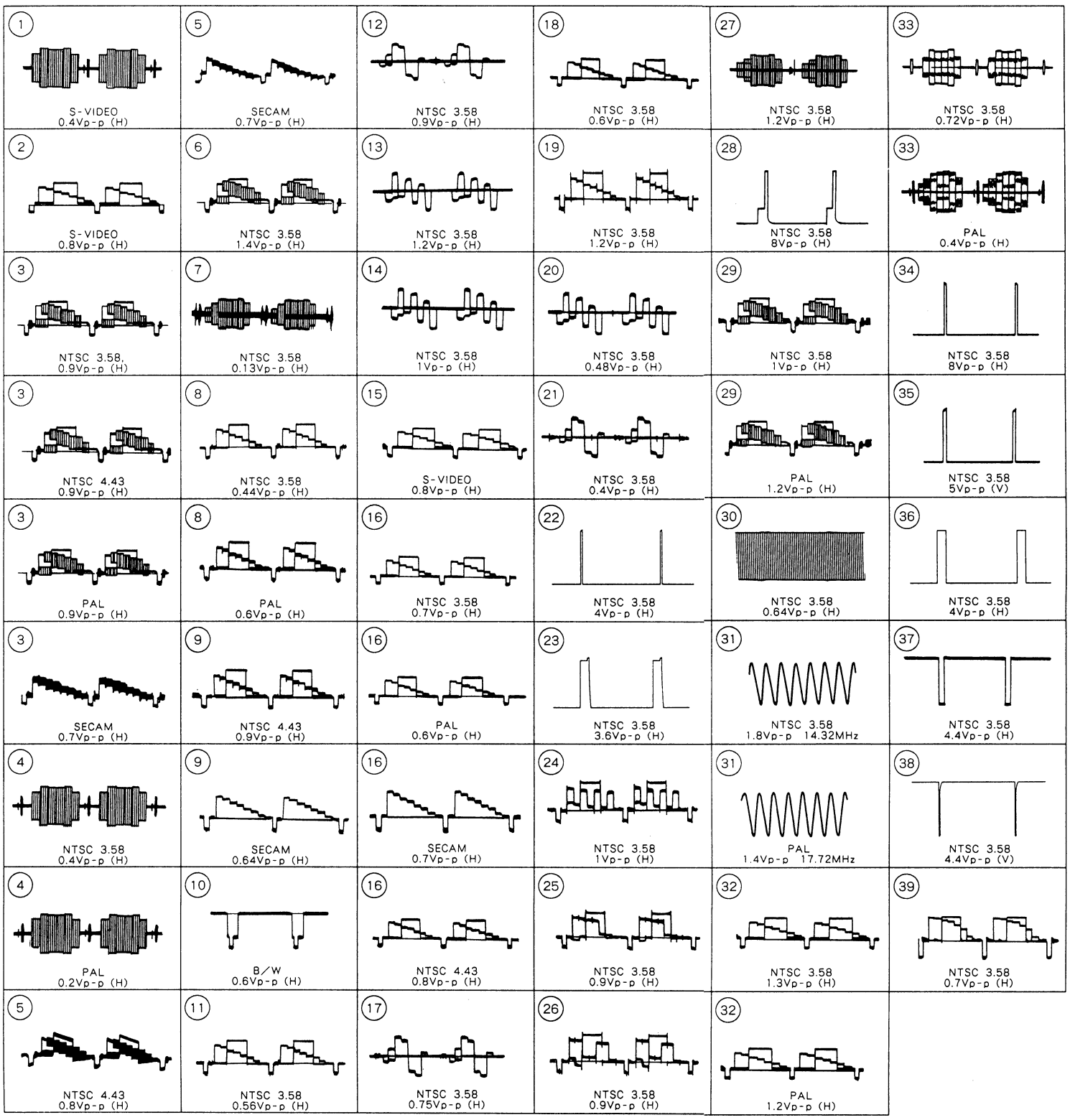
BA BOARD

REF.	Pin. No.	NTSC 3.58	PAL	SECAM	NTSC 4.43
IC1	②	0	0	–0.7	–0.7
	⑪	12	12	0	0
	⑫	0	0	–0.7	–0.7
	⑭	0	0	–0.7	–0.7
	⑮	0	0	–0.7	–0.7
IC2	⑤	6.1	5.8	4.2	7.6
	⑦	6	5.5	4.2	7.3
	⑲	2.4	2.4	5.6	2.4
	⑳	7.5	5.7	5.7	7.5
	㉑	5.6	7.7	6.8	5.6
	㉕	0.1	0.1	0.1	5.8
	㉖	5.8	0.1	0.1	0.1
	㉗	0.1	0.1	5.8	0.1
	㉘	0.1	5.8	0.1	0.1
IC6	②	10	0	0	10
	④	0	10	10	0
IC10	㉔	0	3.6	3.6	0
IC11	②	5	0	0	5

REF.		NTSC 3.58	PAL	SECAM	NTSC 4.43
Q7	B	0	0	–0.8	–0.8
	C	–	–	–	–
	E	–0.8	–0.8	–1.4	–1.4
Q8	B	0.1	0.1	5.3	5.3
	C	12	12	0	0
	E	–	–	–	–
Q16	B	5.4	0	0	5.4
	C	0	0	0	0
	E	–	–	–	–
Q17	B	5.3	5.3	0.2	5.3
	C	4.7	4.7	5	4.7
	E	–	–	–	–
Q21	B	0.1	0.1	5.3	5.3
	C	0	0	0	0
	E	–	–	–	–
Q22	B	4.5	4.5	0.5	0.5
	C	0	0	10	10
	E	–	–	–	–
Q27	B	4.9	0	0	4.9
	C	0	0	0	0
	E	–	–	–	–
Q37	B	5	0	0	5
	C	0	0	0	0
	E	–	–	–	–
Q38	B	5.7	0	0	0
	C	0	11.7	11.7	11.7
	E	–	–	–	–
Q41	B	0	5.9	0	5.1
	C	11.8	0	11.8	0
	E	–	–	–	–
Q43	B	0	0	0	0
	C	4.5	4.5	0.5	0.5
	E	–	–	–	–
Q45	B	0	5.4	0	0
	C	0	0	0	0
	E	–	–	–	–
Q201	B	0	5.2	0	5.2
	C	5.8	0	5.8	0
	E	–	–	–	–
Q202	B	5.8	0	5.8	0
	C	–	–	–	–
	E	5.2	5.1	5.2	5.1

REF.		NTSC 3.58	PAL	SECAM	NTSC 4.43
Q203	B	0	5.8	5.8	5.8
	C	–	–	–	–
	E	5.2	5.1	5.2	5.1
Q204	B	5.8	0	0	0
	C	0	5.8	5.8	5.8
	E	–	–	–	–
Q208	B	0	0	0	0
	C	1.5	1.4	0	1.5
	E	–	–	–	–
Q305	B	0.1	5.8	0.1	0.1
	C	6	0	6	6
	E	–	–	–	–
Q306	B	5.3	0.1	0.1	5.3
	C	0	6	6	0
	E	–	–	–	–
Q307	B	0	0	0	0
	C	6	0	6	6
	E	–	–	–	–
Q308	B	0	0	0	0
	C	0	6	6	6
	E	–	–	–	–
Q309	B	0	0	5.7	0
	C	–	–	–	–
	E	0	0	5.1	0
Q310	B	0	5.1	0	5.1
	C	–	–	–	–
	E	0	4.5	1.4	4.5
Q311	B	0	0.5	0.2	0.5
	C	0	0	3.8	2.8
	E	–	–	–	–
Q312	B	0	0.5	0.2	0.5
	C	0	2.8	3.2	2.8
	E	–	–	–	–
Q325	B	5	0	0	5
	C	0	3.6	3.6	0
	E	–	–	–	–
Q350	B	0.1	0	5.9	0.1
	C	1.6	1.5	0	1.6
	E	–	–	–	–

BA BOARD



BA

[4-STD DECODER]

BA BOARD
(COMPONENT SIDE)

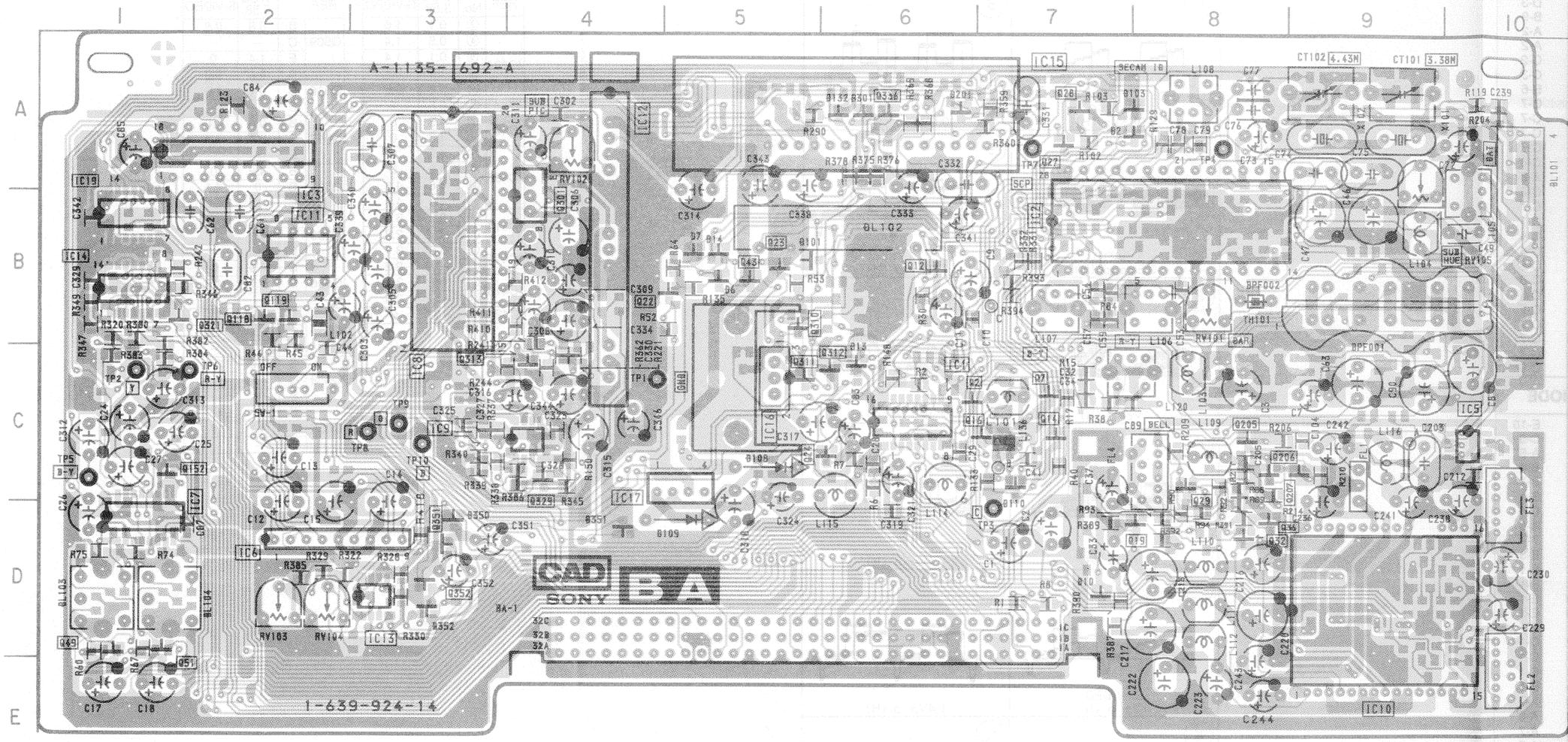
IC	
IC1	C-6
IC2	B-7
IC3	A-2
IC5	C-10
IC6	D-2
IC7	D-1
IC8	B-3
IC9	C-4
IC10	D-9
IC11	B-2
IC12	A-4
IC13	D-3
IC14	B-1
IC15	A-7
IC16	C-5
IC17	C-5
IC19	B-1

TRANSISTOR	
Q2	C-6
Q7	C-7
Q12	B-6
Q14	C-7
Q16	C-7
Q19	D-8
Q22	B-5
Q23	B-5
Q24	C-6
Q27	A-7
Q28	A-7
Q29	C-8
Q32	D-8
Q36	D-8
Q43	B-5
Q49	D-1
Q51	D-1
Q118	B-2
Q119	B-2
Q152	C-1
Q205	C-8
Q206	C-8
Q207	C-8
Q301	B-4
Q310	B-5
Q311	C-5
Q312	C-6
Q313	C-3
Q321	B-2
Q329	C-4
Q336	A-6
Q351	D-3
Q352	D-3

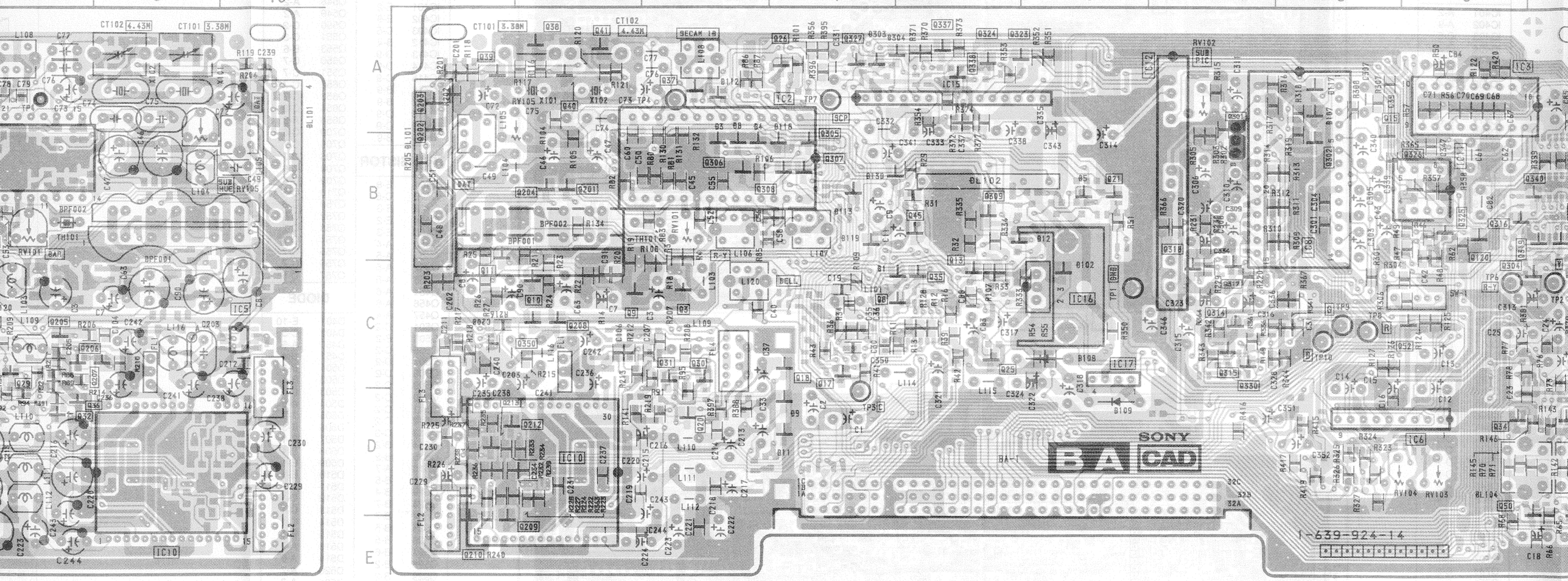
DIODE	
D2	A-8
D6	B-5
D7	B-5
D10	D-7
D13	C-6
D14	B-5
D101	B-5
D103	A-8
D108	C-5
D109	D-5
D110	C-7
D132	A-6
D201	A-6
D301	A-6
D350	D-3
D351	D-4
D352	D-3

VARIABLE RESISTOR	
CT101	A-9
CT102	A-9
RV101	B-8
RV102	A-4
RV103	D-2
RV104	D-2
RV105	B-10

– BA BOARD – ＜Component Side＞

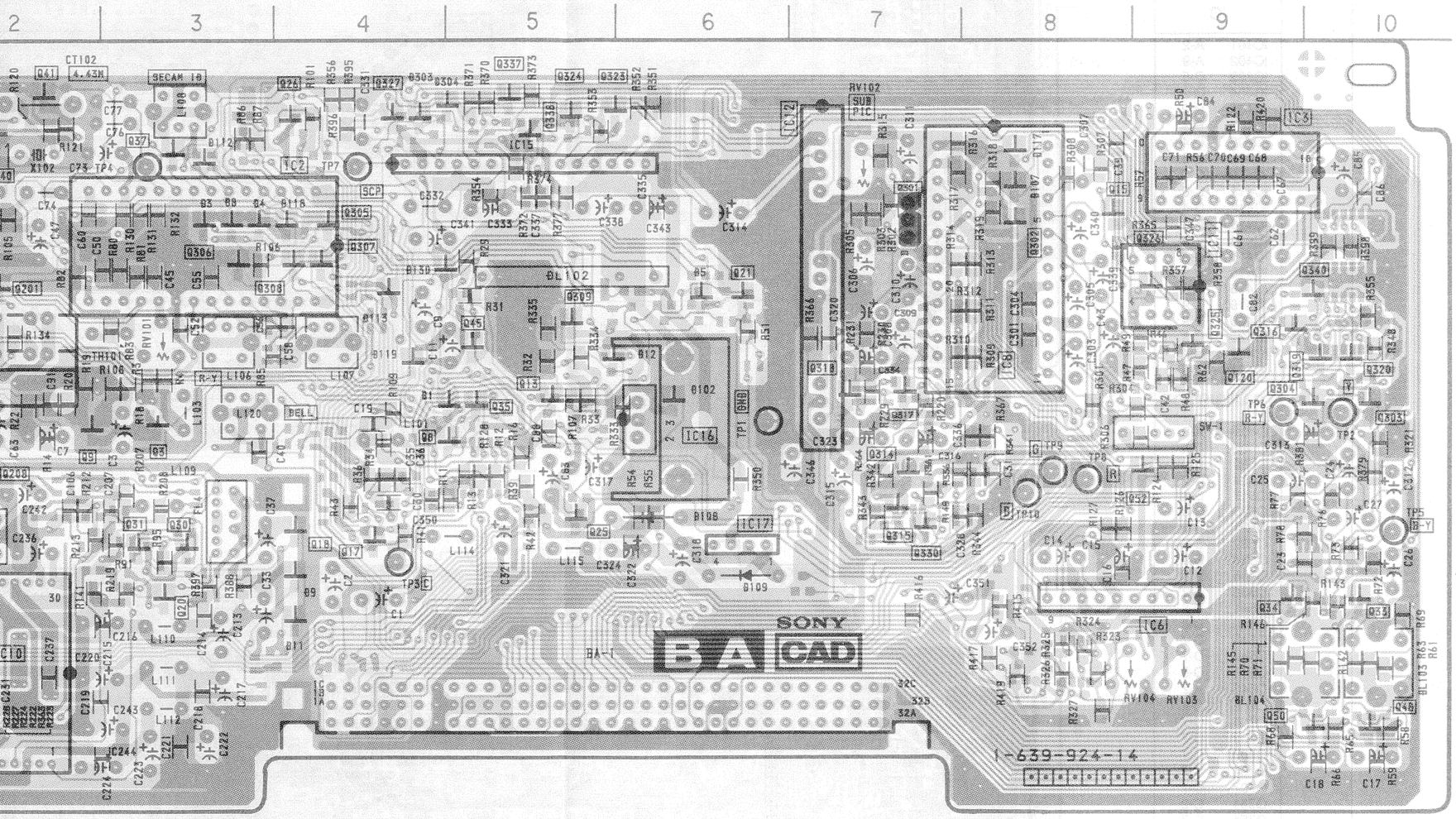


<Conductor Side>



• : Pattern from the side which ena
• : Pattern of the rear side.

VPH-1272QM/Q
RM-1271



BA BOARD
(CONDUCTOR SIDE)

IC	
IC2	B-3
IC3	A-9
IC6	D-9
IC8	B-8
IC10	D-2
IC11	B-9
IC12	B-7
IC15	A-5
IC16	C-6
IC17	C-6

TRANSISTOR	
Q3	C-3
Q8	C-4
Q9	C-2
Q10	C-2
Q11	B-1
Q13	C-5
Q15	B-8
Q17	C-4
Q18	C-4
Q20	D-3
Q21	B-6
Q25	C-5
Q26	A-4
Q30	C-3
Q31	C-3
Q33	D-10
Q34	D-9
Q35	C-5
Q37	A-3
Q38	A-2
Q39	A-1
Q40	A-2
Q41	A-2
Q45	B-5
Q48	D-10
Q50	D-10
Q52	C-9
Q120	B-9
Q201	B-2
Q202	A-1
Q203	A-1
Q204	B-2
Q208	C-2
Q209	E-1
Q210	E-1
Q212	D-2
Q213	D-1
Q301	B-7
Q302	B-8
Q303	C-10
Q304	C-10
Q305	B-4
Q306	B-3
Q307	B-4
Q308	B-4
Q309	B-5
Q314	C-7
Q315	C-7
Q316	B-9
Q317	C-7
Q318	C-7
Q319	B-10
Q320	B-10
Q323	A-5
Q324	A-5
Q325	B-9
Q326	B-9
Q327	A-4
Q330	C-7
Q337	A-5
Q338	A-5
Q340	B-10
Q350	C-2

DIODE	
D1	C-5
D3	B-3
D4	B-3
D5	B-6
D8	B-3
D9	D-4
D11	D-4
D12	B-5
D102	C-6
D107	A-8
D108	C-6
D109	D-6
D112	A-3
D113	B-4
D118	B-4
D119	B-4
D130	B-4
D303	A-4
D304	A-5

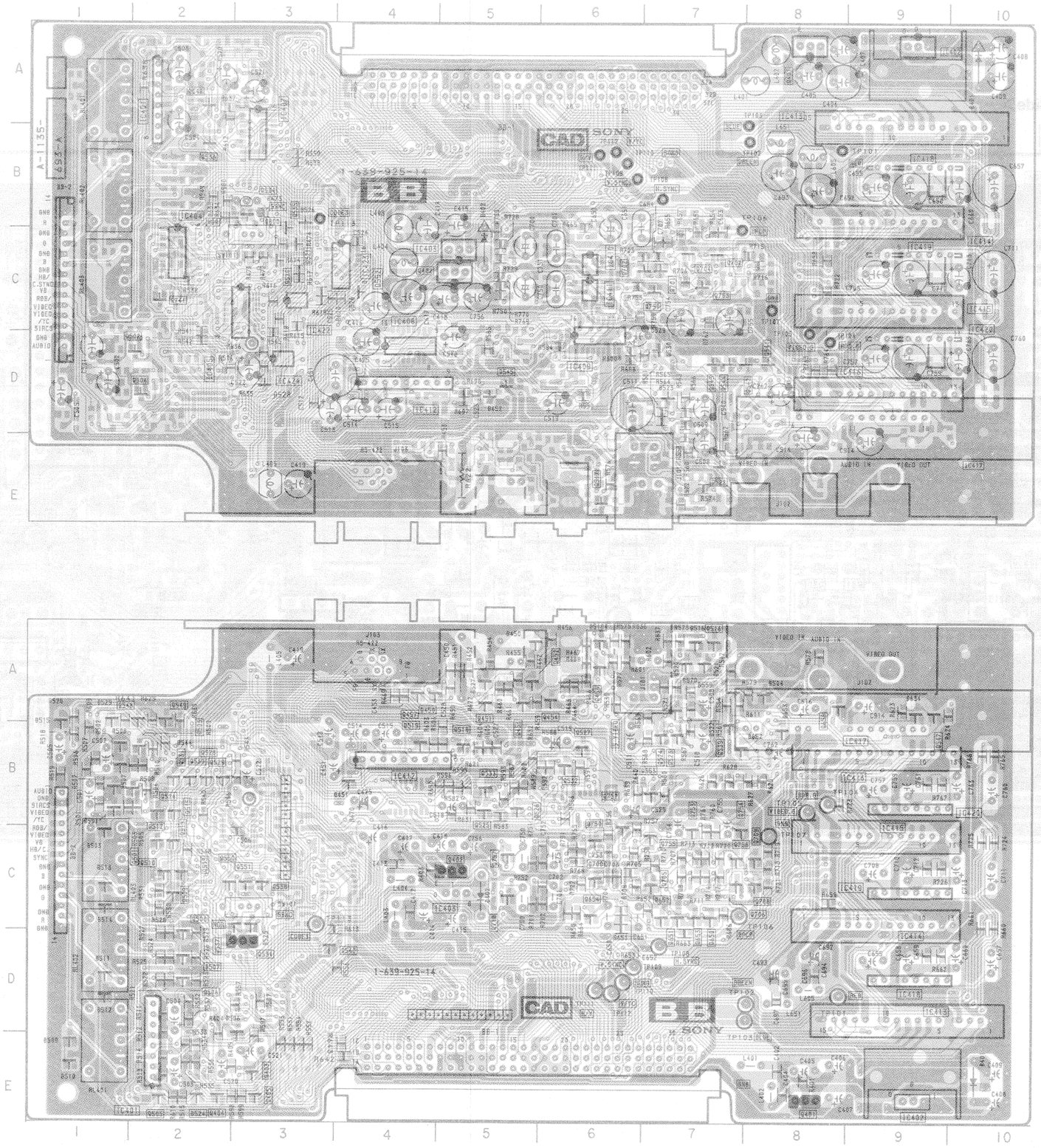
VARIABLE RESISTOR	
CT101	A-1
CT102	A-2
RV101	B-3
RV102	A-7
RV103	D-9
RV104	D-9
RV105	B-2

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

BB

[SIGNAL SELECT, R.G.B PRE AMP]

– BB BOARD – ＜Component Side＞



BB BOARD
(COMPONENT SIDE)

IC	
IC401	A-2
IC402	A-9
IC403	C-5
IC404	C-2
IC405	D-2
IC407	B-3
IC408	D-4
IC409	D-6
IC410	C-6
IC411	C-6
IC412	D-4
IC413	B-9
IC414	B-9
IC415	C-9
IC416	D-9
IC418	B-9
IC419	C-9
IC420	D-9
IC422	C-3
IC423	C-4
IC424	D-3

TRANSISTOR	
Q401	A-8
Q402	C-4
Q502	D-2
Q504	D-2
Q517	E-6
Q520	C-3
Q521	C-3
Q522	E-7
Q534	B-3
Q535	B-3
Q536	B-2
Q541	D-8
Q542	D-8
Q543	D-7
Q544	D-7
Q545	D-5
Q546	A-2
Q552	C-4
Q701	C-7
Q702	C-7
Q703	C-7
Q704	C-7
Q707	C-7
Q741	C-2
Q751	C-7
Q800	B-3

DIODE	
D401	A-10
D402	C-5
D452	D-5
D523	D-7
D526	B-3
D528	D-3
D530	D-7

BB BOARD
(CONDUCTOR SID

IC	
IC401	E-2
IC402	E-9
IC403	C-5
IC412	B-4
IC413	D-9
IC414	D-9
IC415	C-9
IC416	B-9
IC417	B-9
IC418	D-9
IC419	C-9
IC420	B-9

TRANSISTOR	
Q401	E-8
Q402	C-5
Q403	E-3
Q404	E-2
Q405	E-3
Q450	A-4
Q451	A-5
Q452	A-5
Q453	A-5
Q454	A-6
Q456	A-6
Q457	A-4
Q501	C-2
Q503	B-2
Q506	D-2
Q507	D-2
Q508	D-2
Q509	C-2
Q510	C-2
Q511	C-2
Q512	C-2
Q513	C-3
Q514	B-2
Q515	B-2
Q516	A-7
Q518	B-5
Q519	B-4
Q523	B-7
Q524	B-7
Q525	B-5
Q526	B-5
Q527	B-6
Q528	B-2
Q529	B-2
Q530	B-2
Q531	B-2
Q532	B-6
Q533	B-5
Q534	D-3
Q537	C-3
Q538	C-3
Q539	B-7

• : Pattern fro
• : Pattern of t

PRE AMP]

BB BOARD
(CONDUCTOR SIDE)

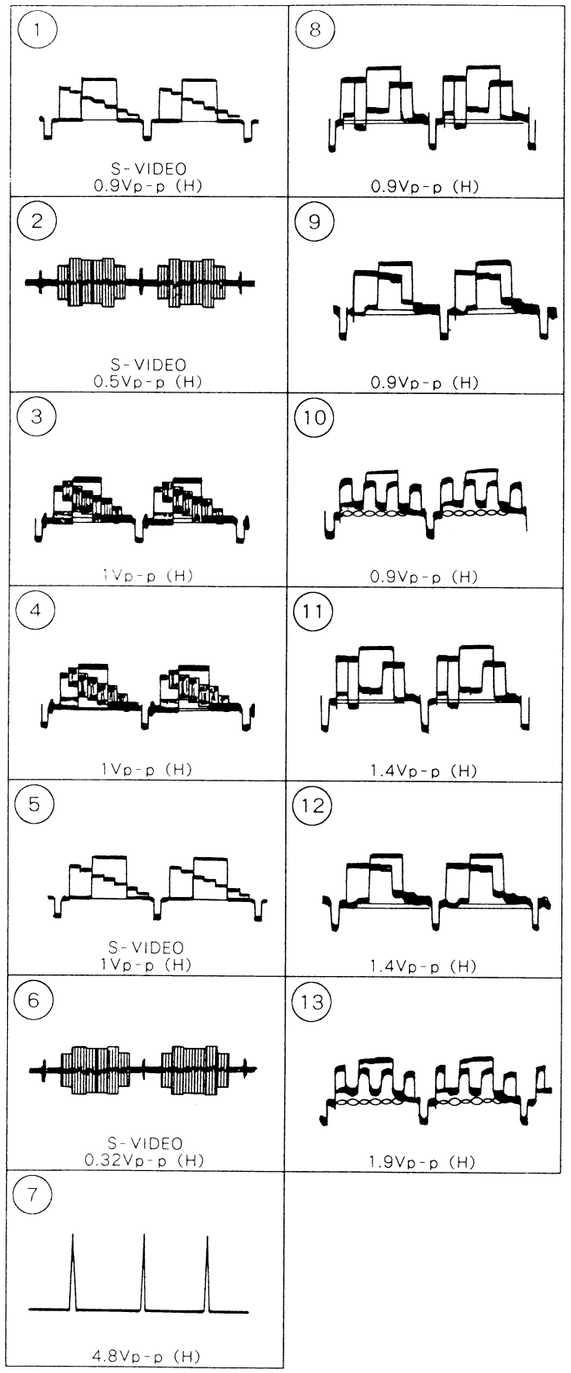
IC	
IC401	E-2
IC402	E-9
IC403	C-5
IC412	B-4
IC413	D-9
IC414	D-9
IC415	C-9
IC416	B-9
IC417	B-9
IC418	D-9
IC419	C-9
IC420	B-9

TRANSISTOR	
Q401	E-8
Q402	C-5
Q403	E-3
Q404	E-2
Q405	E-3
Q450	A-4
Q451	A-5
Q452	A-5
Q453	A-5
Q454	A-6
Q456	A-6
Q457	A-4
Q501	C-2
Q503	B-2
Q506	D-2
Q507	D-2
Q508	D-2
Q509	C-2
Q510	C-2
Q511	C-2
Q512	C-2
Q513	C-3
Q514	B-2
Q515	B-2
Q516	A-7
Q518	B-5
Q519	B-4
Q523	B-7
Q524	B-7
Q525	B-5
Q526	B-5
Q527	B-6
Q528	B-2
Q529	B-2
Q530	B-2
Q531	B-2
Q532	B-6
Q533	B-5
Q534	D-3
Q537	C-3
Q538	C-3
Q539	B-7
Q540	D-3
Q547	B-9
Q548	A-2
Q549	A-2
Q550	C-2
Q551	C-3
Q553	B-6
Q650	C-7
Q651	C-7
Q652	C-7
Q653	C-7
Q654	C-6
Q656	A-8
Q700	C-6
Q705	C-7
Q706	C-7
Q708	C-8
Q709	C-8
Q710	C-5
Q750	C-6
Q752	C-6
Q753	C-7
Q754	C-7
Q755	C-7
Q756	C-7
Q757	C-5

DIODE	
D401	E-10
D402	C-5
D450	A-5
D451	B-4
D501	B-1
D502	B-1
D503	C-1
D504	A-8
D505	?-?
D506	E-3
D507	B-1
D508	B-1
D509	E-1
D510	E-1
D511	D-1
D512	D-1
D513	C-1
D514	C-1
D515	B-1
D516	A-7
D518	A-6
D520	A-7
D521	A-7
D522	A-7
D524	E-2
D525	D-3
D527	A-5
D529	A-1
D634	A-9
D652	A-7
D653	B-8

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

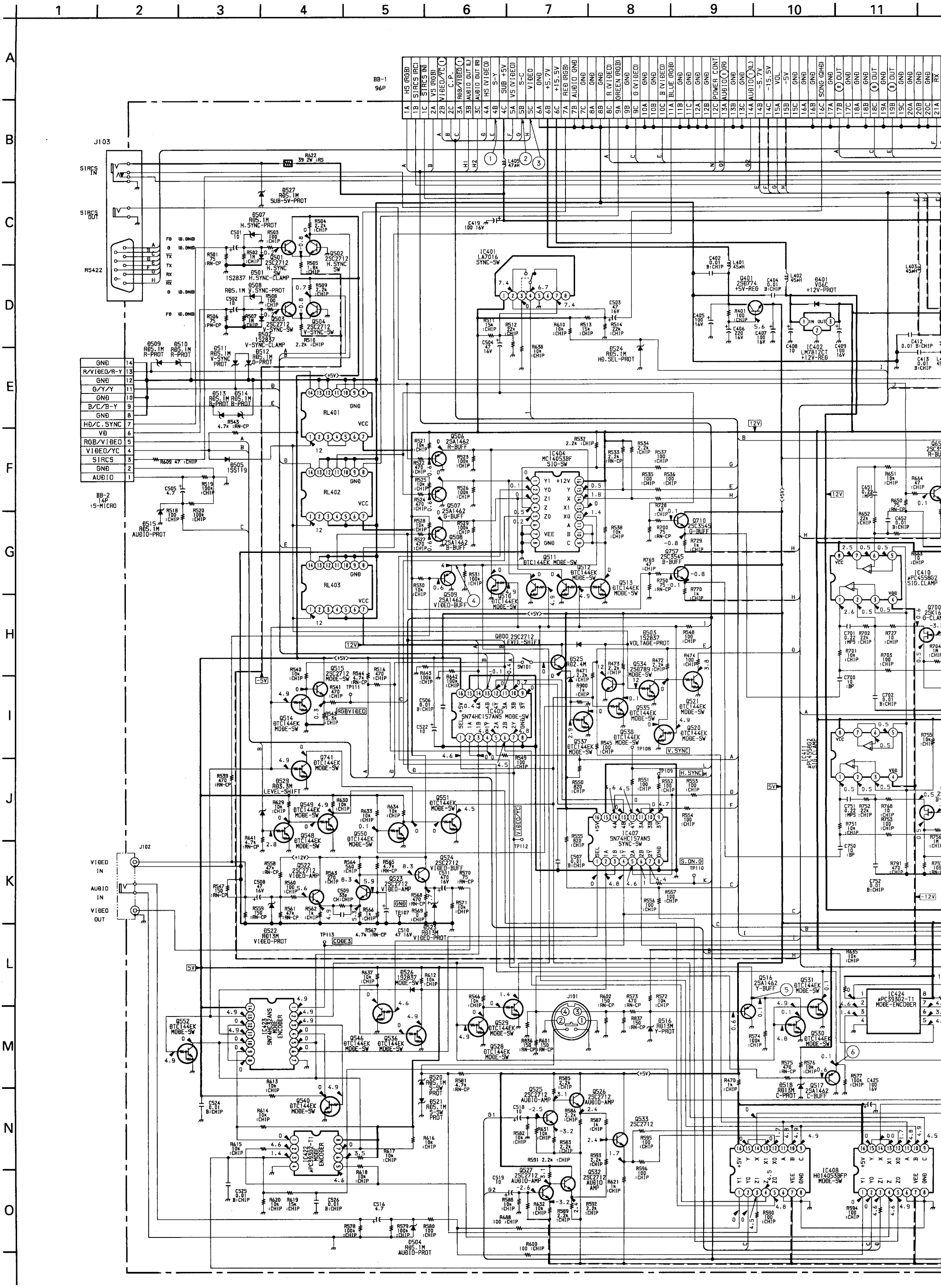
BB BAORD

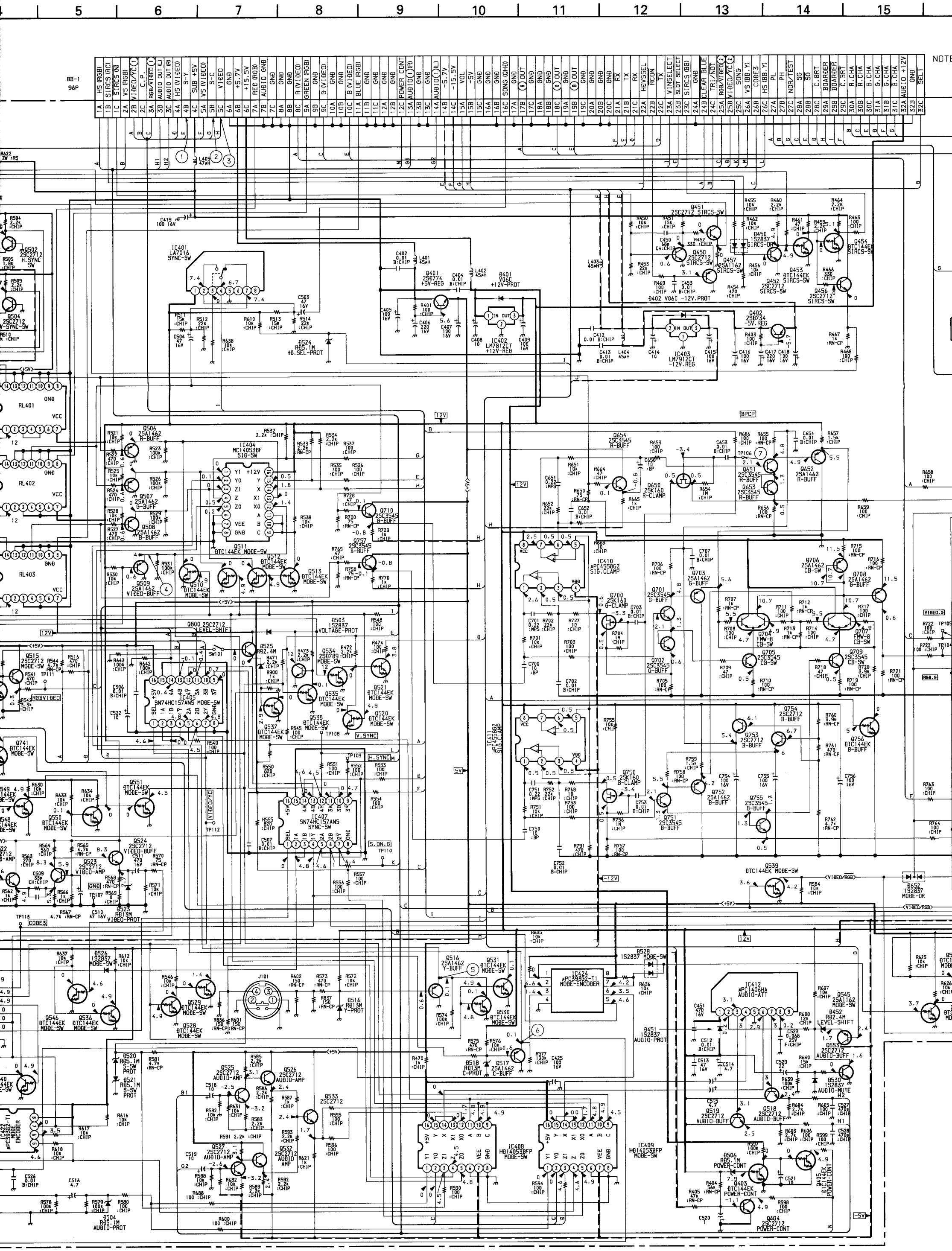


BB BOARD

REF.	Pin. No.	NTSC 3.58	S-VIDEO
IC404	②	0.1	1.6
	④	0.5	1.4
	⑤	0.1	1.4
	⑫	1.4	0.1
	⑭	1.8	0.5
	⑮	0.5	2
IC405	⑥	4.5	0
	⑦	4.8	0
IC408	③	4.5	0
	④	4.5	0
	⑩	4.6	4.8
	⑪	4.5	4.6
IC414	②	0.6	3.1
	⑪	–0.2	2.2
IC415	②	0.6	3.1
	⑪	–0.2	2.2
IC416	②	0.7	3.1
	⑪	–0.2	2.3
IC423	②	4.9	0

REF.		NTSC 3.58	S-VIDEO
Q509	B	0.6	0.6
	C	–	–
	E	1.4	0
Q516	B	0.6	0.6
	C	0.1	1.6
	E	–	–
Q517	B	0.6	0.6
	C	0.1	1.4
	E	–	–
Q528	B	4.9	0
	C	0	4.1
	E	–	–
Q529	B	0	1.4
	C	4.1	0
	E	–	–
Q530	B	4.9	0
	C	0.1	1.6
	E	–	–
Q531	B	4.9	0
	C	0.1	1.4
	E	–	–
Q539	B	3.6	2.4
	C	4.2	1.9
	E	–	–
Q656	B	0	4.9
	C	4.1	0
	E	–	–


BB-1
96P
J103
SIRCS IN
SIRCS OUT
RS422
BB-2
14P
:S-MICRO
J102
VIDEO IN
AUDIO IN
VIDEO OUT
GND 14
R/VIDEO/R-Y 13
GND 12
G/Y/Y 11
GND 10
B/C/B-Y 9
GND 8
HD/C.SYNC 7
VD 6
RGB/VIDEO 5
VIDEO/YC 4
SIRCS 3
GND 2
AUDIO 1
R622 39 2W :RS
D527 RD5.1M SUB-5V-PROT
D507 RD5.1M H.SYNC-PROT
D501 1S2837 H.SYNC-CLAMP
D508 RD5.1M V.SYNC-PROT
D502 152837 V-SYNC-CLAMP
D509 RD5.1M R-PROT
D510 RD5.1M R-PROT
D511 RD5.1M V-SYNC PROT
D512 RD5.1M G-PROT
D513 RD5.1M B-PROT
D514 RD5.1M B-PROT
D505 1SS119
D515 RD5.1M AUDIO-PROT
RL401
RL402
RL403
IC401 LA7016 SYNC-SW
IC404 MC14053BF SIG-SW
IC405 SN74HC157ANS MODE-SW
IC407 SN74HC157ANS SYNC-SW
IC408 HD14053BFP MODE-SW
IC410 μPC4558G2 SIG.CLAMP
IC411 μPC4558G2 SIG.CLAMP
IC422 μPC1352C-T1 MODE-ENCODER
IC423 SN74HC32ANS MODE-ENCODER
IC424 μPC39362-T1 MODE-ENCODER
IC402 LM78L12CT +12V-REG
Q401 2S0774 +5V-REG
D401 VO6C +12V-PROT
Q506 2SA1462 R-BUFF
Q507 2SA1462 G-BUFF
Q508 2SA1462 B-BUFF
Q509 2SA1462 VIDEO-BUFF
Q511 DTC144EK MODE-SW
Q512 DTC144EK MODE-SW
Q513 DTC144EK MODE-SW
Q710 2SC3545 G-BUFF
Q757 2SC3545 B-BUFF
Q800 2SC2712 LEVEL-SHIFT
D503 152837 VOLTAGE-PROT
D524 RD5.1M HD.SEL-PROT
Q515 2SC2712 MODE-SW
Q514 DTC144EK MODE-SW
Q741 DTC144EK MODE-SW
D529 RD3.3M LEVEL-SHIFT
Q549 DTC144EK MODE-SW
Q548 DTC144EK MODE-SW
Q550 DTC144EK MODE-SW
Q551 DTC144EK MODE-SW
Q522 2SC2712 VIDEO-AMP
Q523 2SC2712 VIDEO-AMP
Q524 2SC2712 VIDEO-BUFF
D522 RD13M VIDEO-PROT
D523 RD13M VIDEO-PROT
Q525 2SC2712 AUDIO-AMP
Q526 2SC2712 AUDIO-AMP
Q527 2SC2712 AUDIO-AMP
Q532 2SC2712 AUDIO AMP
Q533 2SC2712
Q534 2S0789 MODE-SW
Q535 DTC144EK MODE-SW
Q537 DTC144EK MODE-SW
Q538 DTC144EK MODE-SW
Q520 DTC144EK MODE-SW
Q521 DTC144EK MODE-SW
Q552 DTC144EK MODE-SW
Q540 DTC144EK MODE-SW
Q546 DTC144EK MODE-SW
Q536 DTC144EK MODE-SW
Q528 DTC144EK MODE-SW
Q529 DTC144EK MODE-SW
Q516 2SA1462 Y-BUFF
Q531 DTC144EK MODE-SW
Q530 DTC144EK MODE-SW
Q517 2SA1462 C-BUFF
D516 RD13M Y-PROT
D518 RD13M C-PROT
D520 RD5.1M S-SW PROT
D521 RD5.1M S-SW PROT
D504 RD5.1M AUDIO-PROT
SW101
TP101 TP102 TP103 TP104 TP105 TP106 TP107 TP108 TP109 TP110 TP111 TP112 TP113
CODE3
RGBVIDEO
V.SYNC
H.SYNC
S.ON.G
+5V
12V
-5V
-12V
GND
VCC
VDD


BB-1
96P
HS (RGB)
SIRCS (RC)
SIRCS (N)
VS (RGB)
VIDEO/YC (1)
C.P.
RGB/VIDEO (1)
AUDIO OUT (L)
AUDIO OUT (R)
HS (VIDEO)
S-Y
SUB +5V
VS (VIDEO)
S-C
VIDEO
GND
+5.7V
+15.5V
RED (RGB)
AUDIO GND
GREEN (RGB)
B (VIDEO)
BLUE (RGB)
POWER CONT
AUDIO(R)
AUDIO(L)
-5.7V
-15.5V
VOL
-5V
SONG (QHD)
OUT
RX
TX
HDVSSEL
RCON
VINSELECT
SLOT SELECT
SIRCS (BB)
CLEAR BLUE
TRI/NOT
VIDEO/YC (2)
SONG
VS (BB.Y)
CODE3
HS (BB.Y)
PH
NOR/TEST
SG
C.BRT
BOARDER
R.CHA
B.CHA
G.CHA
AUDIO +12V
SEL1
NOTE
IC401 LA7016 SYNC-SW
IC402 LM7812CT +12V-REG
IC403 LM7912CT -12V.REG
IC404 MC14053BF SIG-SW
IC405 SN74HC157ANS MODE-SW
IC407 SN74HC157ANS SYNC-SW
IC408 HD14053BFP MODE-SW
IC409 HD14053BFP MODE-SW
IC410 μPC4558G2 SIG.CLAMP
IC411 μPC4558G2 SIG.CLAMP
IC412 μPC1406HA AUDIO-ATT
IC422 μPC393G2-T1 MODE ENCODER
IC424 μPC393G2-T1 MODE-ENCODER
Q401 2S0774 +5V-REG
Q402 2SB734 -5V.REG
Q450 2SC2712 SIRCS-SW
Q451 2SC2712 SIRCS-SW
Q452 2SC2712 SIRCS-SW
Q453 DTC144EK SIRCS-SW
Q454 DTC144EK SIRCS-SW
Q456 2SC2712 SIRCS-SW
Q457 2SA1162 SIRCS-SW
Q501 2SC2712 H.SYNC SW
Q502 2SC2712 H.SYNC SW
Q504 2SC2712 V-SYNC-SW
Q506 2SA1462 R-BUFF
Q507 2SA1462 G-BUFF
Q508 2SA1462 B-BUFF
Q509 2SA1462 VIDEO-BUFF
Q510 DTC144EK MODE-SW
Q511 DTC144EK MODE-SW
Q512 DTC144EK MODE-SW
Q513 DTC144EK MODE-SW
Q515 2SC2712 MODE-SW
Q516 2SA1462 Y-BUFF
Q517 2SA1462 C-BUFF
Q518 DTC144EK MODE-SW
Q520 DTC144EK MODE-SW
Q521 DTC144EK MODE-SW
Q523 2SC2712 VIDEO-AMP
Q524 2SC2712 VIDEO-BUFF
Q525 2SC2712 AUDIO-AMP
Q526 2SC2712 AUDIO-AMP
Q527 2SC2712 AUDIO-AMP
Q528 DTC144EK MODE-SW
Q529 DTC144EK MODE-SW
Q530 DTC144EK MODE-SW
Q531 DTC144EK MODE-SW
Q532 2SC2712 AUDIO AMP
Q533 2SC2712
Q534 2S0789 MODE-SW
Q535 DTC144EK MODE-SW
Q536 DTC144EK MODE-SW
Q537 DTC144EK MODE-SW
Q539 DTC144EK MODE-SW
Q545 2SA1162 MODE-SW
Q546 DTC144EK MODE-SW
Q550 DTC144EK MODE-SW
Q551 DTC144EK MODE-SW
Q654 2SC3545 R-BUFF
Q650 2SK160 R-CLAMP
Q651 2SC3545 R-BUFF
Q652 2SA1462 R-BUFF
Q653 2SC3545 R-BUFF
Q700 2SK160 G-CLAMP
Q701 2SC3545 G-BUFF
Q702 2SC3545 G-BUFF
Q703 2SA1462 G-BUFF
Q704 FMW-8 CB-SW
Q705 2SC3545 CB-SW
Q706 2SA1462 CB-SW
Q707 FMW-8 CB-SW
Q708 2SA1462 G-BUFF
Q709 2SC3545 CB-SW
Q750 2SK160 B-CLAMP
Q751 2SC3545 B-BUFF
Q752 2SA1462 B-BUFF
Q753 2SC2712 B-BUFF
Q754 2SC2712 B-BUFF
Q755 2SC3545 B-BUFF
Q756 DTC144EK B-BUFF
Q403 DTC144EK POWER-CONT
Q404 2SC2712 POWER-CONT
D401 V06C +12V-PROT
D402 V06C -12V.PROT
D450 1S2837 SIRCS-DR
D451 152837 AUDIO-PROT
D452 RD2.4M LEVEL-SHIFT
D501 RD5.1M S-SW PROT
D502 RD5.1M S-SW PROT
D503 152837 VOLTAGE-PROT
D504 RD5.1M AUDIO-PROT
D506 RD5.1M POWER-CONT
D523 RD13M VIDEO-PROT
D524 RB5.1M HD.SEL-PROT
D525 RD2.4M
D526 152837 MODE-SW
D528 152837 MODE-SW
D530 152837 AUDIO-MUTE
D652 152837 MODE-DR
L401 45μH
L402 45μH
L403 45μH
L404 45μH
L405 47μH
RL401
RL402
RL403
SW101
TP105
TP106
TP107
TP108
TP109
TP110
TP111
TP112
TP113
J101
BPCP
VCC
GND
+5V
12V
5V
-5V
-12V
RGBVIDEO
VIDEO/YC
V.SYNC
H.SYNC
S.DN.G
VIDEO/RGB
C419 100 16V
C503 47 16V
C504 47 16V
C506 0.01 B:CHIP
C507 0.01 B:CHIP
C509 33p CH:CHIP
C510 47 16V
C511 470 16V
C516 4.7
C522 10
C526 0.01 B:CHIP
C701 0.22 :MPS
C703 0.01 B:CHIP
C707 0.01 B:CHIP
C700 10 :BP
C702 0.01 B:CHIP
C705 0.01 B:CHIP
C709 0.01 B:CHIP
C750 10 :BP
C751 0.22 :MPS
C752 0.01 B:CHIP
C753 0.01 B:CHIP
C754 100 16V
C755 100 16V
C756 100 16V
C412 0.01 B:CHIP
C413 0.01 B:CHIP
C414 10
C415 100 16V
C416 100 16V
C417 220 16V
C418 100 16V
C451 470 16V
C512 0.01 B:CHIP
C513 47 16V
C514 4.7
C515 4.7
C523 0.068 25V F:CHIP
C527 470p :CHIP
C528 470p :CHIP
C529 22
C530 152837 AUDIO-MUTE
C425 100 16V
R622 2W :RS
R504 2.2k :CHIP
R505 1.8k :CHIP
R509 2.2k :CHIP
R510 * :CHIP
R511 15k :CHIP
R512 22k :CHIP
R513 15k :CHIP
R514 22k :CHIP
R516 470 :CHIP
R521 10k :CHIP
R522 470 :CHIP
R523 100k :CHIP
R524 470 :CHIP
R525 10k :CHIP
R526 100k :CHIP
R527 470 :CHIP
R528 10k :CHIP
R529 100k :CHIP
R530 10k :CHIP
R531 100k :CHIP
R532 2.2k :CHIP
R533 2.2k :RN-CP
R534 2.2k :CHIP
R535 100 :CHIP
R536 100 :CHIP
R537 100 :CHIP
R538 10k :CHIP
R541 470 :CHIP
R542 3.3k :CHIP
R544 4.7k :RN-CP
R548 100 :CHIP
R549 100 :CHIP
R550 820 :CHIP
R551 100 :CHIP
R552 100 :CHIP
R553 100 :CHIP
R554 100 :CHIP
R555 820 :CHIP
R556 100 :CHIP
R557 100 :CHIP
R562 1k :CHIP
R563 270 :CHIP
R564 560 :CHIP
R565 4.7k :RN-CP
R566 1k :CHIP
R567 4.7k :RN-CP
R568 470 :RN-CP
R569 0 :CHIP
R570 75 :RN-CP
R571 10k :CHIP
R572 10k :CHIP
R573 470 :RN-CP
R574 100k :CHIP
R575 470 :RN-CP
R576 10k :CHIP
R577 100k :CHIP
R578 100k :CHIP
R579 100k :CHIP
R580 100 :CHIP
R581 4.7k :RN-CP
R582 10k :CHIP
R583 2.2k :CHIP
R586 2.2k :CHIP
R587 1k :CHIP
R588 10k :CHIP
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R596 100 :CHIP
R597 100k :CHIP
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R600 100 :CHIP
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R754 100 :CHIP
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R756 1M :CHIP
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R758 100 :RN-CP
R759 1.5k :CHIP
R760 3.9k :RN-CP
R761 470 :RN-CP
R762 4.7k :RN-CP
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R766 100 :CHIP
R767 100 :CHIP
R768 10 :CHIP
R769 47 :CHIP
R770 1k :CHIP
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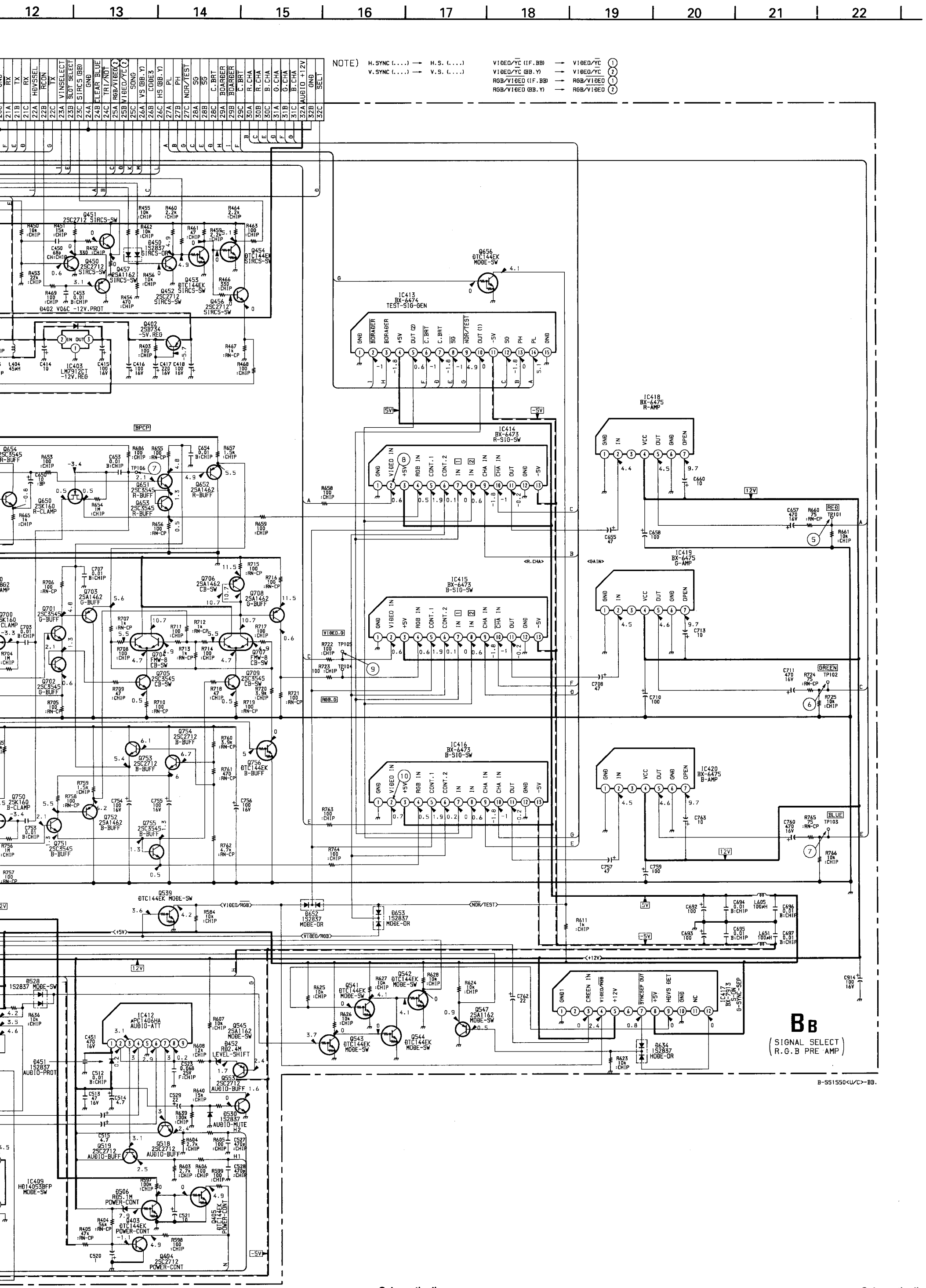
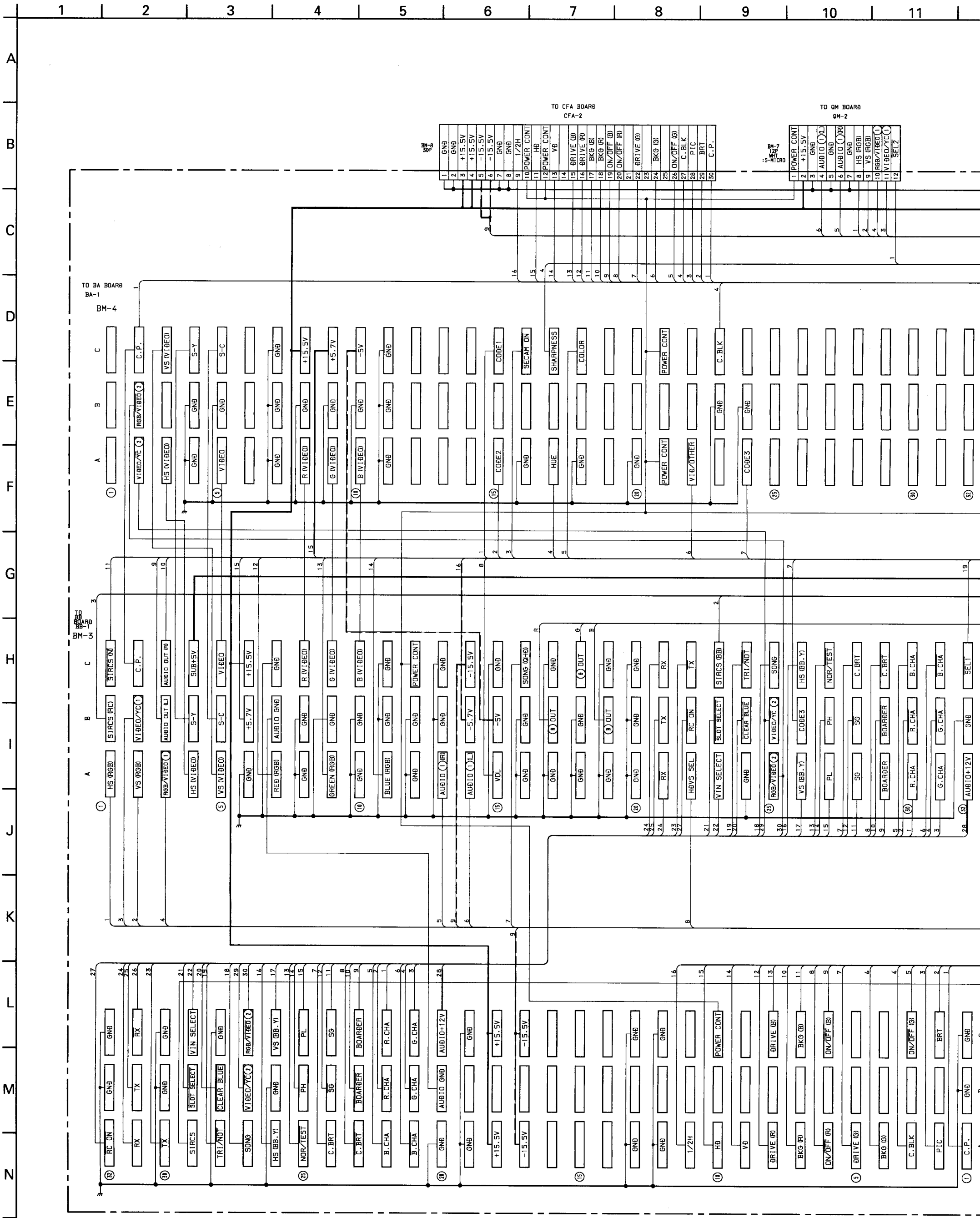
R964 100 :CHIP
R965 100 :CHIP
R966 100 :CHIP
R967 100 :CHIP
R968 100 :CHIP
R969 100 :CHIP
R970 100 :CHIP
R971 100 :CHIP
R972 100 :CHIP
R973 100 :CHIP
R974 100 :CHIP
R975 100 :CHIP
R976 100 :CHIP
R977 100 :CHIP
R978 100 :CHIP
R979 100 :CHIP
R980 100 :CHIP
R981 100 :CHIP
R982 100 :CHIP
R983 100 :CHIP
R984 100 :CHIP
R985 100 :CHIP
R986 100 :CHIP
R987 100 :CHIP
R988 100 :CHIP
R989 100 :CHIP
R990 100 :CHIP
R991 100 :CHIP
R992 100 :CHIP
R993 100 :CHIP
R994 100 :CHIP
R995 100 :CHIP
R996 100 :CHIP
R997 100 :CHIP
R998 100 :CHIP
R999 100 :CHIP


12
13
14
15
16
17
18
19
20
21
22
NOTE) H.SYNC (....) → H.S. (....)
V.SYNC (....) → V.S. (....)
VIDEO/YC (IF.BB) → VIDEO/YC
VIDEO/YC (BB.Y) → VIDEO/YC
RGB/VIDEO (IF.BB) → RGB/VIDEO
RGB/VIDEO (BB.Y) → RGB/VIDEO
IC413 BX-6474 TEST-SIG-GEN
IC414 BX-6473 R-SIG-SW
IC415 BX-6473 B-SIG-SW
IC416 BX-6473 B-SIG-SW
IC418 BX-6475 R-AMP
IC419 BX-6475 G-AMP
IC420 BX-6475 B-AMP
IC417 BX-7913 S-ON G-SYNC-SEP
IC412 μPC1406HA AUDIO-ATT
IC409 HD14053BFP MODE-SW
IC403 LM7912CT -12V.REG
Q402 2SB734 -5V.REG
Q450 2SC2712 SIRCS-SW
Q451 2SC2712 SIRCS-SW
Q452 2SC2712 SIRCS-SW
Q453 DTC144EK SIRCS-SW
Q454 DTC144EK SIRCS-SW
Q456 DTC144EK MODE-SW
Q457 2SA1162 SIRCS-SW
Q456 2SC2712 SIRCS-SW
Q539 DTC144EK MODE-SW
Q541 DTC144EK MODE-SW
Q542 DTC144EK MODE-SW
Q543 DTC144EK MODE-SW
Q544 DTC144EK MODE-SW
Q547 2SA1162 MODE-SW
Q545 2SA1162 MODE-SW
Q553 2SC2712 AUDIO-BUFF
Q530 AUDIO-MUTE
Q519 2SC2712 AUDIO-BUFF
Q518 2SC2712 AUDIO-BUFF
Q403 DTC144EK POWER-CONT
Q405 DTC144EK POWER-CONT
Q404 2SC2712 POWER-CONT
Q650 2SK160 R-CLAMP
Q651 2SC3545 R-BUFF
Q652 2SA1462 R-BUFF
Q653 2SC3545 R-BUFF
Q700 2SK160 G-CLAMP
Q701 2SC3545 G-BUFF
Q702 2SC3545 G-BUFF
Q703 2SA1462 G-BUFF
Q704 FMW-8 CB-SW
Q705 2SC3545 CB-SW
Q706 2SA1462 CB-SW
Q707 FMW-8 CB-SW
Q708 2SA1462 G-BUFF
Q709 2SC3545 CB-SW
Q750 2SK160 B-CLAMP
Q751 2SC3545 B-BUFF
Q752 2SA1462 B-BUFF
Q753 2SC2712 B-BUFF
Q754 2SC2712 B-BUFF
Q755 2SC3545 B-BUFF
Q756 DTC144EK B-BUFF
D450 1S2837 SIRCS-OR
D451 1S2837 AUDIO-PROT
D452 RB2.4M LEVEL-SHIFT
D506 RB5.1M POWER-CONT
D528 1S2837 MODE-SW
D530 1S2837 AUDIO-MUTE
D634 1S2837 MODE-OR
D652 1S2837 MODE-OR
D653 1S2837 MODE-OR
D402 V06C -12V.PROT
BPCP
<R.CHA>
<GAIN>
<VIDEO/RGB>
<NOR/TEST>
VIDEO.G
RGB.G
TP101 RED
TP102 GREEN
TP103 BLUE
TP104
TP105
TP106
5V
-5V
12V
+5V
+12V
BB
(SIGNAL SELECT R.G.B PRE AMP)
B-5515S0<U/C>-BB.


TO CFA BOARD
CFA-2
TO QM BOARD
QM-2
TO BA BOARD
BA-1
BM-4
TO BB BOARD
BB-1
BM-3
GND
+15.5V
-15.5V
1/2H
POWER CONT
HD
VD
DRIVE (B)
DRIVE (R)
BKG (B)
BKG (R)
ON/OFF (B)
ON/OFF (R)
DRIVE (G)
BKG (G)
ON/OFF (G)
C.BLK
PIC
BRT
C.P.
AUDIO (L)
AUDIO (R)
HS (RGB)
VS (RGB)
RGB/VIDEO (1)
VIDEO/YC (1)
SEL2
VS (VIDEO)
S-Y
S-C
RGB/VIDEO (2)
VIDEO/YC (2)
HS (VIDEO)
VIDEO
R (VIDEO)
G (VIDEO)
B (VIDEO)
CODE1
SECAM ON
SHARPNESS
COLOR
CODE2
HUE
VID/OTHER
CODE3
SIRCS (RC)
SIRCS (N)
AUDIO OUT (R)
AUDIO OUT (L)
SUB+5V
+5.7V
RED (RGB)
GREEN (RGB)
BLUE (RGB)
AUDIO GND
AUDIO (R)
AUDIO (L)
-5.7V
-5V
VOL
SONG (QHD)
(6) OUT
RX
TX
HDVS SEL
RC ON
SIRCS (BB)
SLOT SELECT
VIN SELECT
CLEAR BLUE
TRI/NOT
SONG
VS (BB.Y)
HS (BB.Y)
PH
PL
SG
NOR/TEST
C.BRT
BOARDER
B.CHA
R.CHA
G.CHA
SEL1
AUDIO+12V

BM

(MOTHER BOARD)

TO CFA BOARD
CFA-2

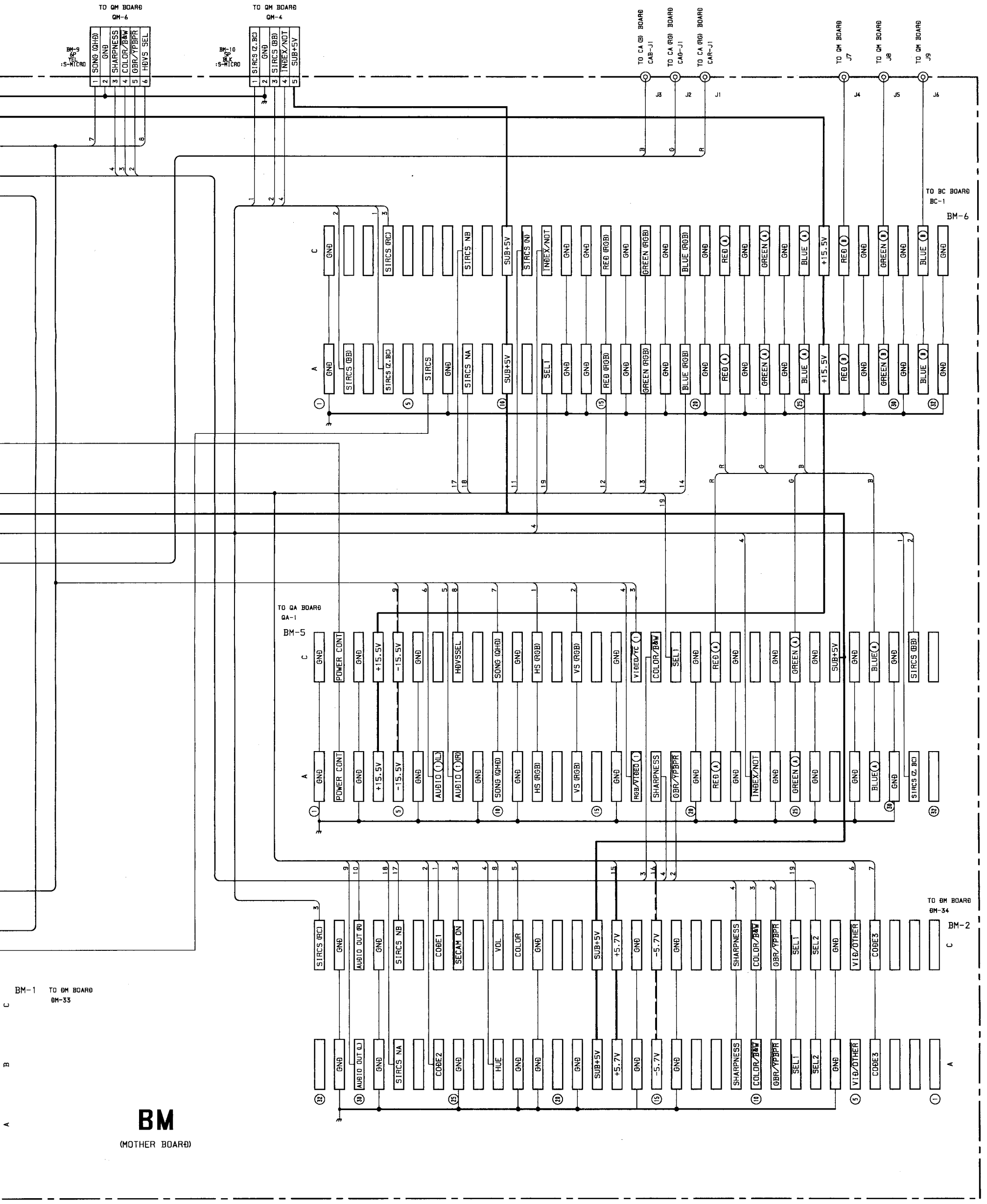
TO QM BOARD
QM-2

TO QM BOARD
QM-6

TO QM BOARD
QM-4

BM-1 TO DM BOARD
DM-33

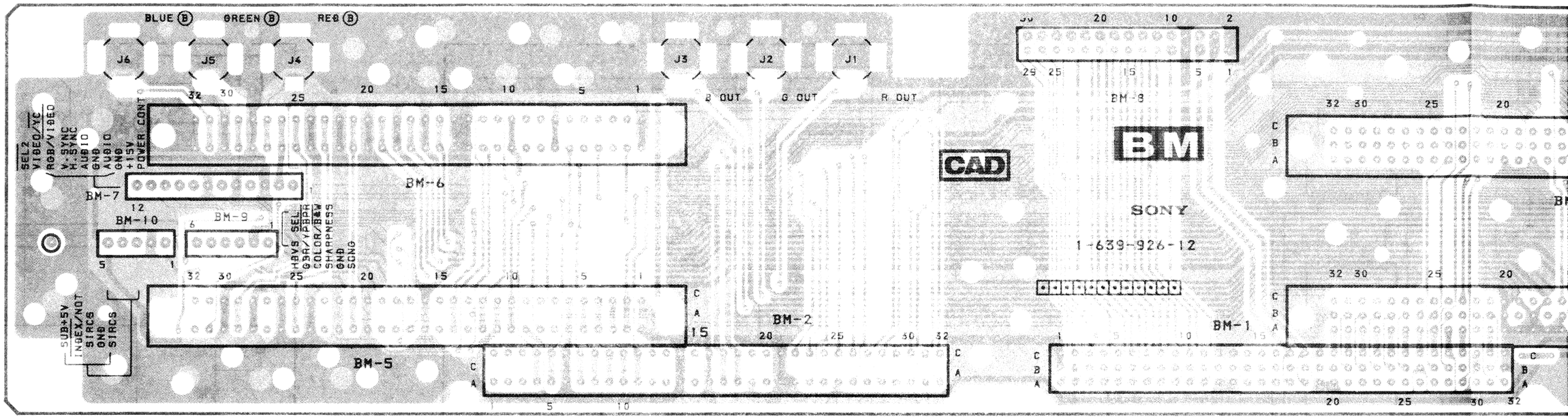
TO QA BOARD
QA-1



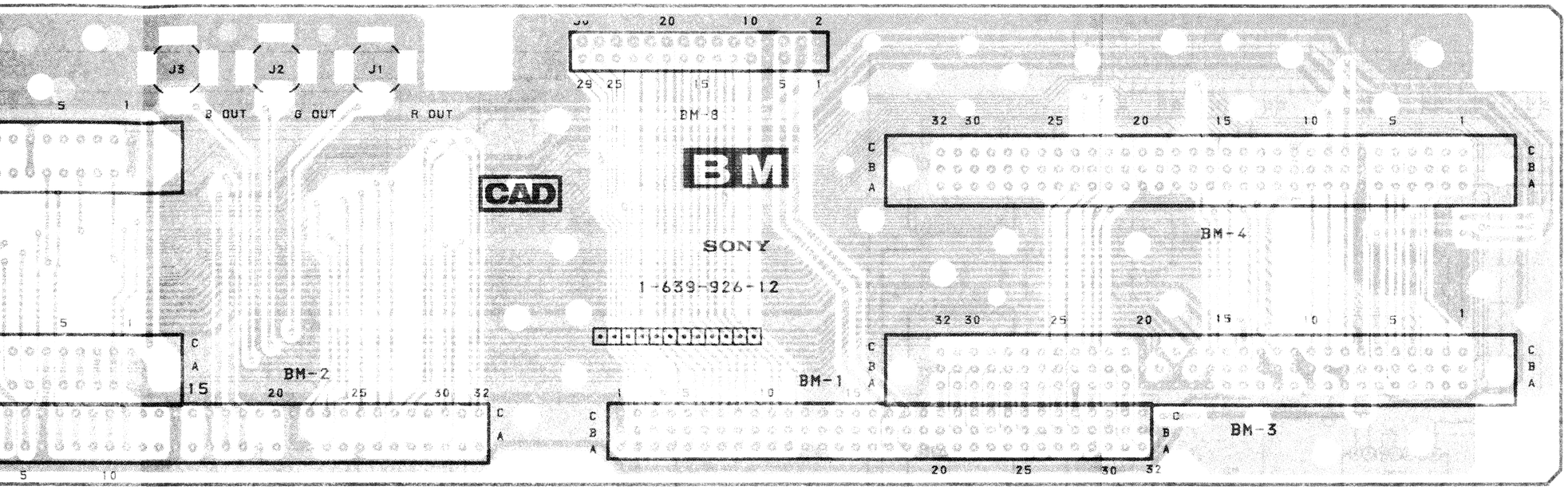
B-SS1550<U/C>-BM.

BM [MOTHER BOARD]

– BM BOARD –



VPH-1272QM/Q RM-1271



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

Schematic diagrams
BC KA L boards ➡

VPH-1272QM/Q
RM-1271

VPH-1272

TO BM BOARD BM-6

BC-1
64P

GND GND SIRCS (GB) SIRCS (BC) SIRCS GND GND SIRCS (NA) SIRCS (NB) SUB+5V SUB+5V SIRCS (N) SELT INDEX/NOT GND GND GND GND RED (RGB) RED (RGB) GND GND GREEN (RGB) GREEN (RGB) GND GND BLUE (RGB) BLUE (RGB) GND GND RED (A) RED (A) GND GND GREEN (A) GREEN (A) GND GND BLUE (A) BLUE (A) +15.5V +15.5V RED (B) RED (B) GND GND GREEN (B) GREEN (B) GND GND BLUE (B) BLUE (B) GND GND

1A 1C 2A 2C 3A 3C 4A 4C 5A 5C 6A 6C 7A 7C 8A 8C 9A 9C 10A 10C 11A 11C 12A 12C 13A 13C 14A 14C 15A 15C 16A 16C 17A 17C 18A 18C 19A 19C 20A 20C 21A 21C 22A 22C 23A 23C 24A 24C 25A 25C 26A 26C 27A 27C 28A 28C 29A 29C 30A 30C 31A 31C 32A 32C

15.5V

5V

R101 100
R102 100
R103 47k
R104 47k
R105 47k
R106 10k
C101 0.01 F
D105 1SS119 5W
R108 10k
R110 10k
R107 2.2k
D101 1SS119 SIRCS-OR
D102 1SS119
Q101 2SC2785 SIRCS-INV
R109 10k
IC101 MC74HC4053N SIRCS-SW
C102 0.01 F
D103 1SS119 SIRCS-OR
R112 100
IC107 0.3 SN74HC132AN BUFFER
R111 47k
R117 10k
D104 1SS119 SIRCS-OR
R114 100
R113 3.9k
C105 4.7
Q102 2SC2785 SIRCS-INV
IC103 SN74HC132AN BUFFER
C104 0.01 F
R118 33k
C107 4.7
IC104 H074HC123AP GATE-PULSE-GEN
R119 33k
C108 4.7
C103 0.01 F
R115 47k
R116 3.9k
C106 4.7
Q103 2SC2785 SIRCS-INV

L101 45mH
IC105 LM7812CT +12V-REG
D107 V06C +12V-REG-PROT
C111 0.01 F
C110 10
C109 100 16V
D106 1SS119 RY-PROT
R120 2.2k
Q104 2SC2785 MODE-SW
Q105 2SC2785 MODE-SW
R121 10k
R122 10k
RY101
RY102
RY103

BC
(SIRCS FILTER &SELECT)

B-551550<U/C>-BC.

TO BM BOARD BM-31

L-301
1P
WHT
:S-MICRO

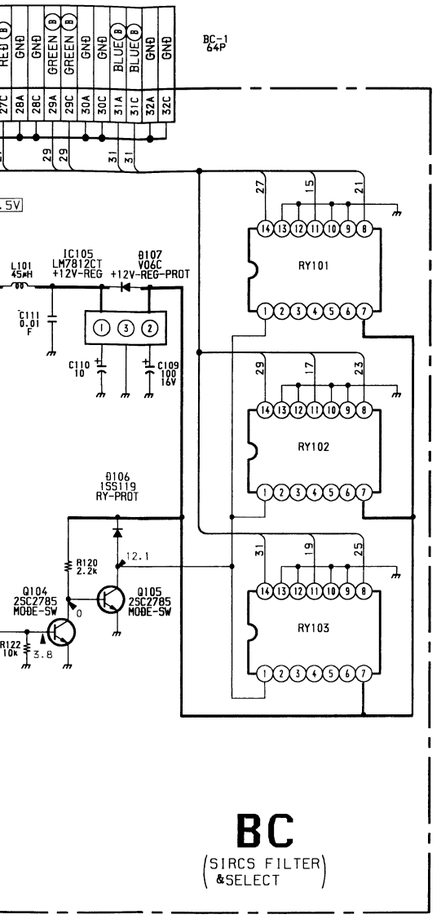
+5V (SUB) 1
GND 2
D0 3
D1 4
D2 5
D3 6
D4 7
D5 8
D6 9
D7 10
LED (WR) 11

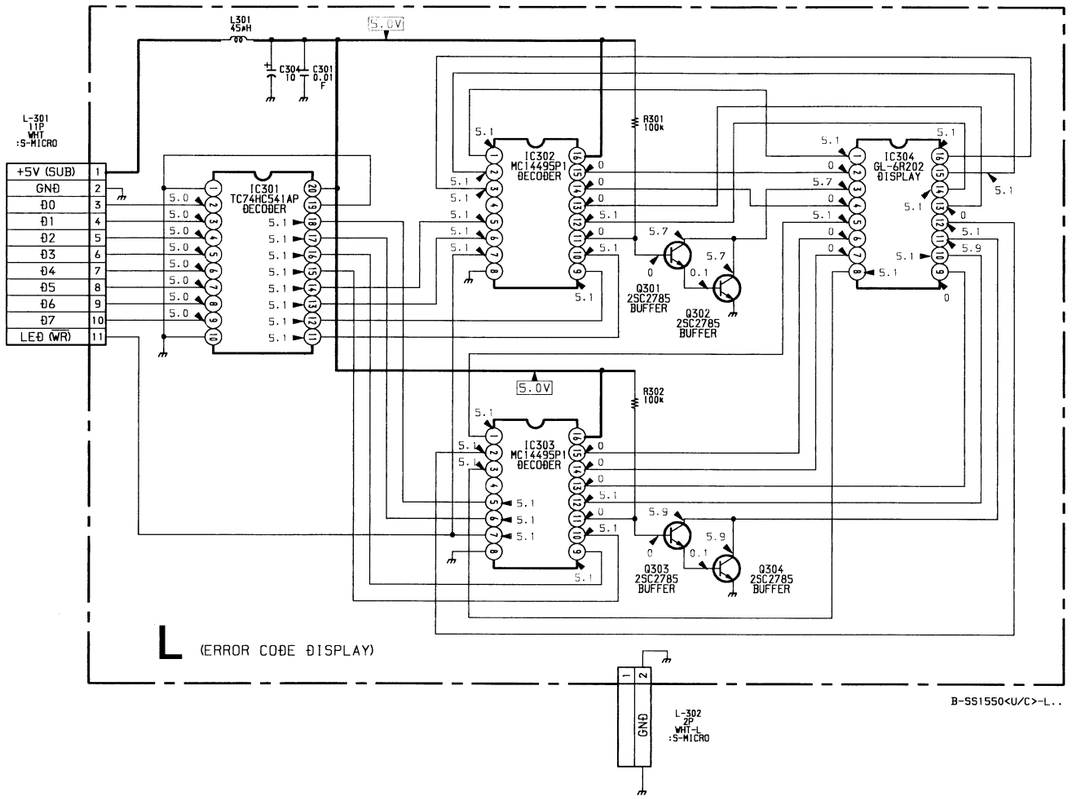
L301 45mH
C304 10
C301 0.01 F
5.0V
IC301 TC74HC541AP DECODER
IC302 MC14495P1 DECODER
IC303 MC14495P1 DECODER
R301 100k
R302 100k
Q301 2SC2785 BUFFER
Q302 2SC2785 BUFFER
Q303 2SC2785 BUFFER
Q304 2SC2785 BUFFER
IC304 GL-6R202 DISPLAY

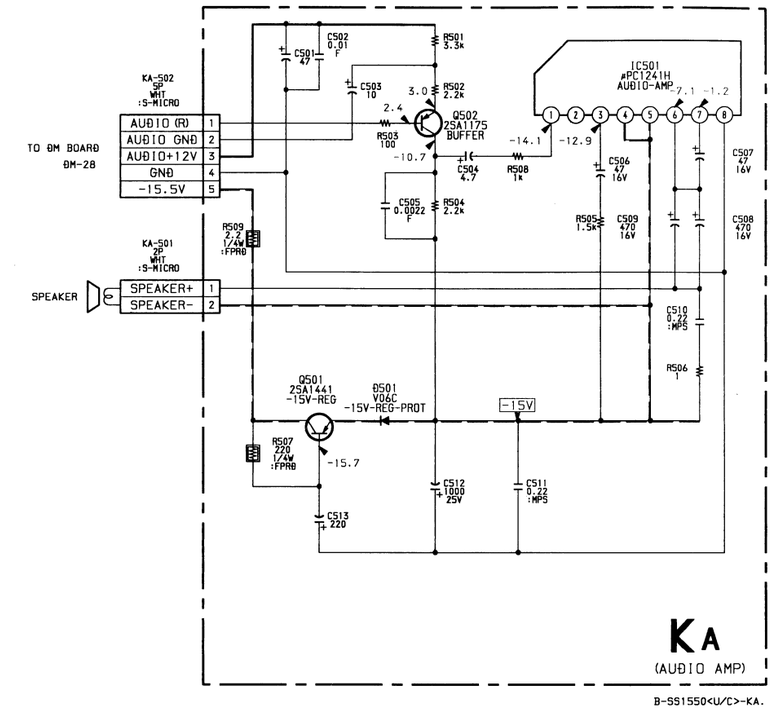
L (ERROR CODE DISPLAY)

L-302
2P
WHT-L
:S-MICRO
GND

7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23

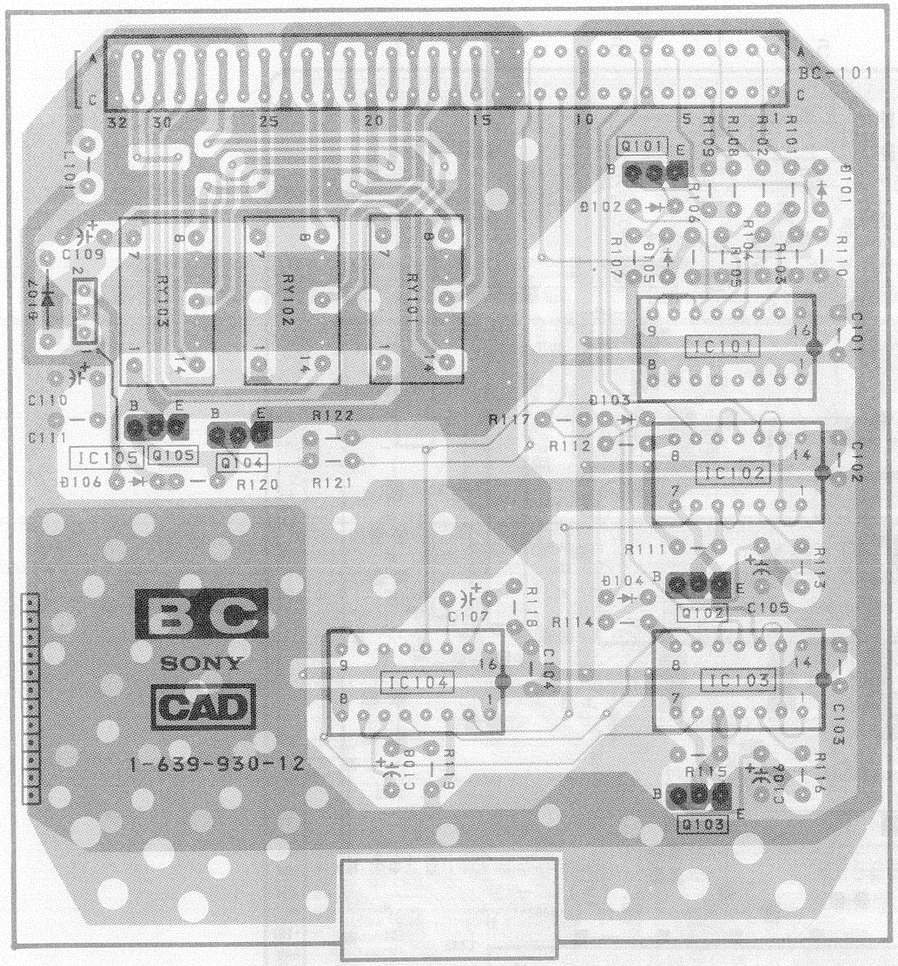






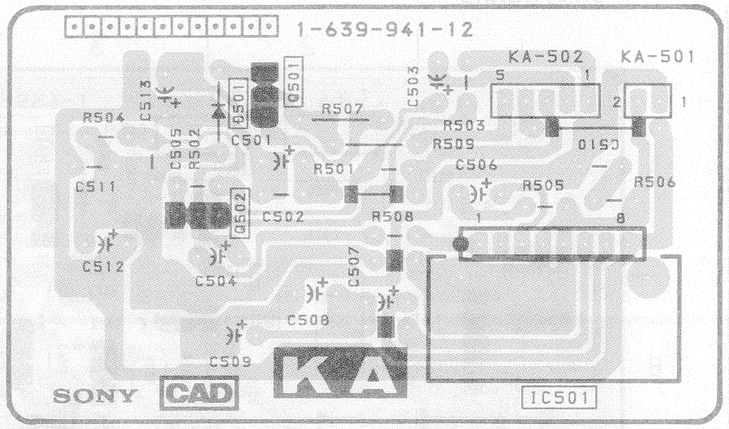
BC [SIRCS FILTER & SELECT]

– BC BOARD –



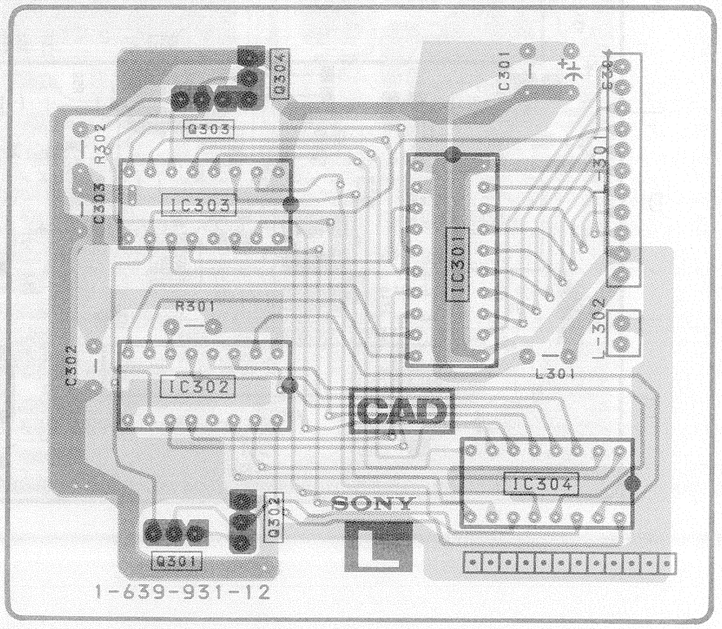
KA [AUDIO AMP]

– KA BOARD –



L [ERROR CODE DISPLAY]

– L BOARD –



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

VPH-1272QM/Q
RM-1271

CA(B)

[VIDEO OUT B]

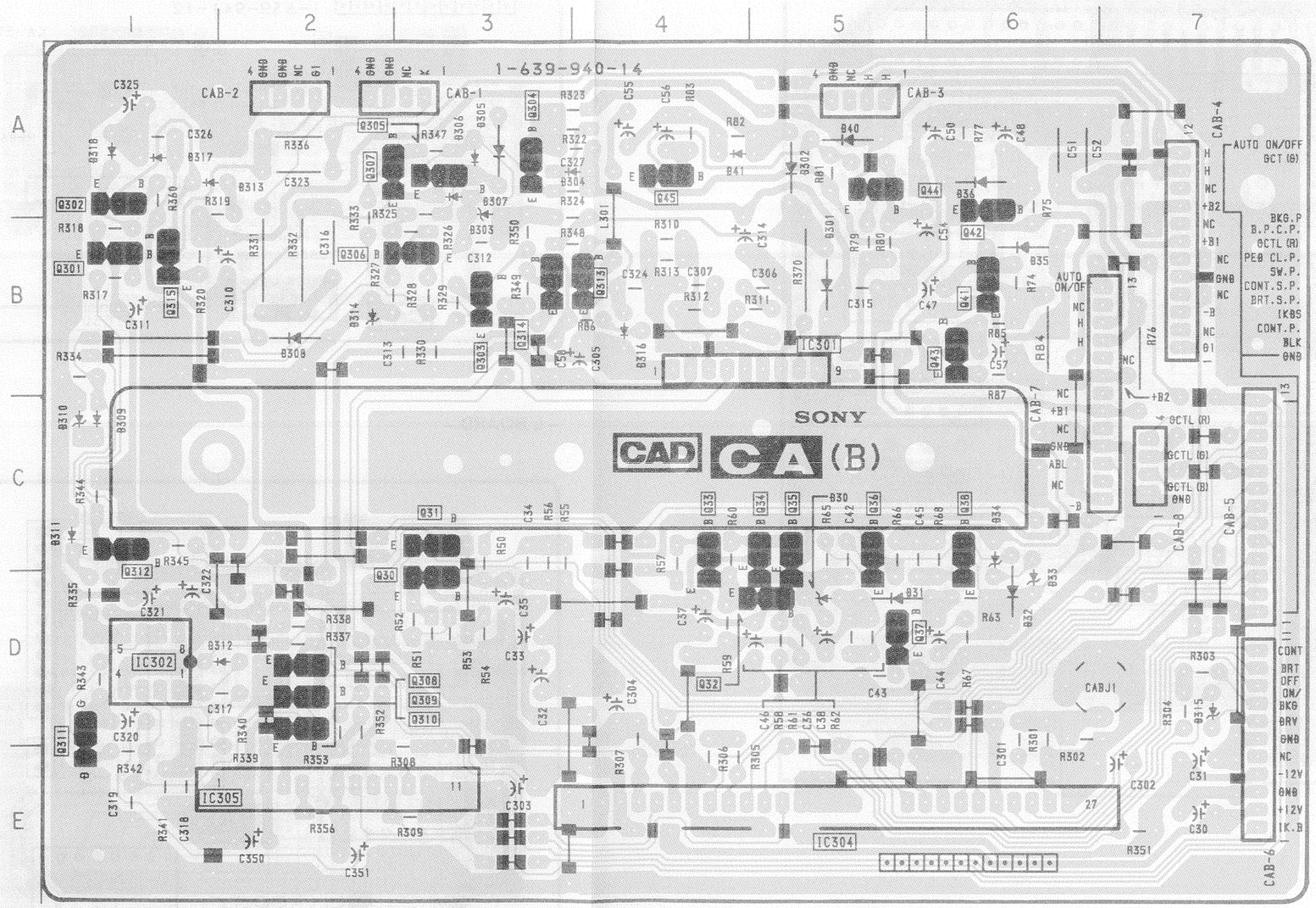
CA(B) BOARD

IC	
IC301	B-5
IC302	D-1
IC304	E-5
IC305	E-2

TRANSISTOR	
Q30	D-3
Q31	C-3
Q32	D-5
Q33	C-4
Q34	C-5
Q35	C-5
Q36	C-5
Q37	D-5
Q38	C-6
Q41	B-6
Q42	A-6
Q43	B-6
Q44	A-5
Q45	A-4
Q301	B-1
Q302	A-1
Q303	B-3
Q304	A-3
Q305	A-3
Q306	B-2
Q307	A-2
Q308	D-2
Q309	D-2
Q310	D-2
Q311	D-1
Q312	C-1
Q313	B-4
Q314	B-3
Q315	B-1

DIODE	
D30	D-5
D31	D-5
D32	D-6
D33	D-6
D34	C-6
D35	B-6
D36	A-6
D40	A-5
D41	A-4
D301	B-5
D302	A-5
D303	A-3
D304	A-3
D305	A-3
D306	A-3
D307	A-3
D309	C-1
D310	C-1
D311	C-1
D312	D-1
D313	A-1
D314	B-2
D315	D-7
D316	B-4
D317	A-1
D318	A-1

– CA(B) BOARD –



VPH-1272QM/Q
RM-1271

CA (B)

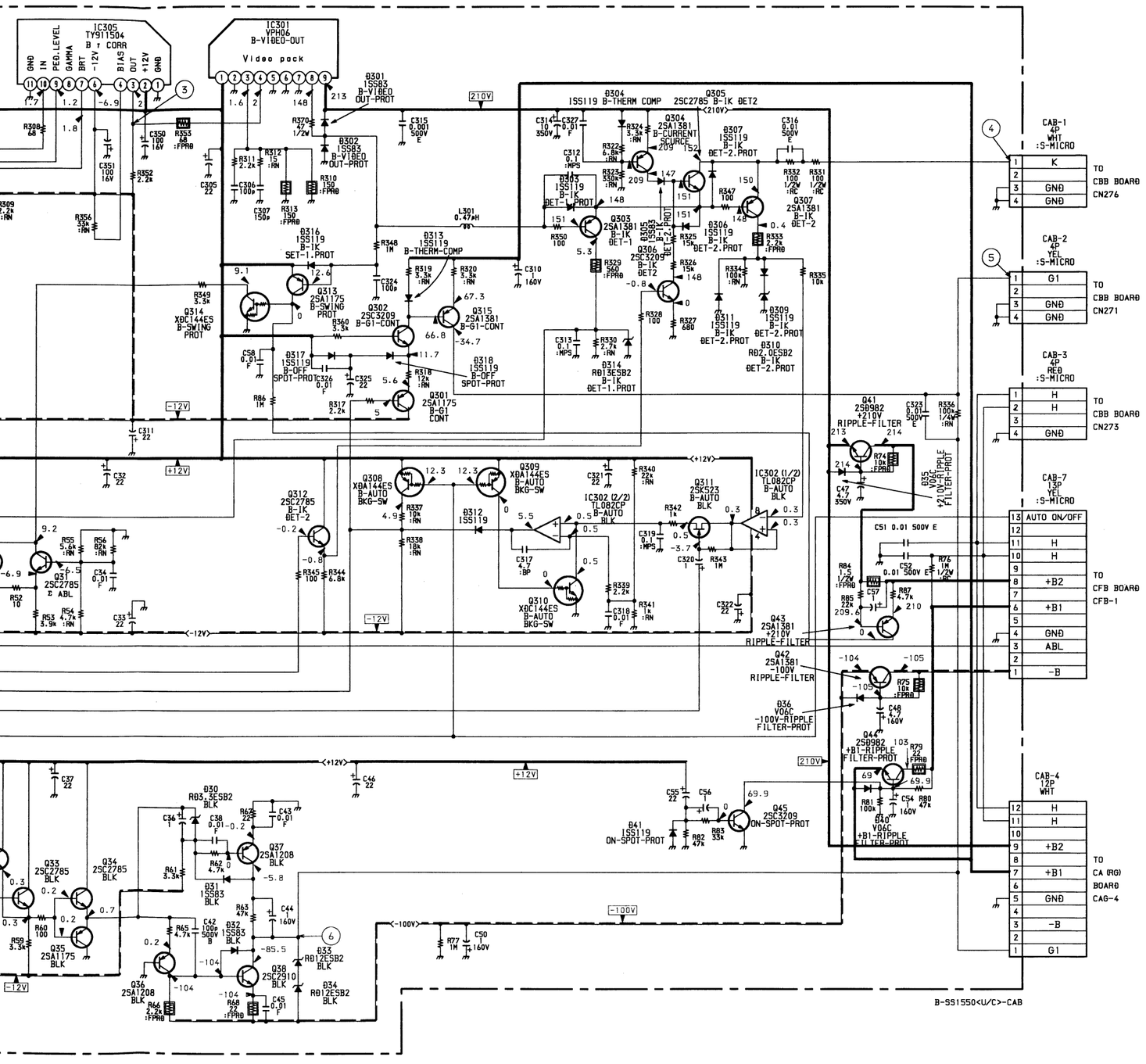
(VIDEO OUT (B))

B-SS1550<U/C>-CAB

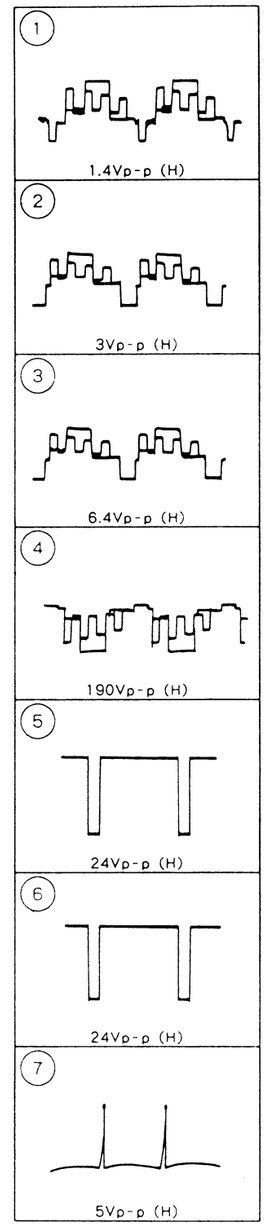
Schen
CA

VPH-1272QM/Q
RM-1271

7 8 9 10 11 12 13 14 15 16



CA(B) BOARD



Schematic diagram

◀ CA(B) board

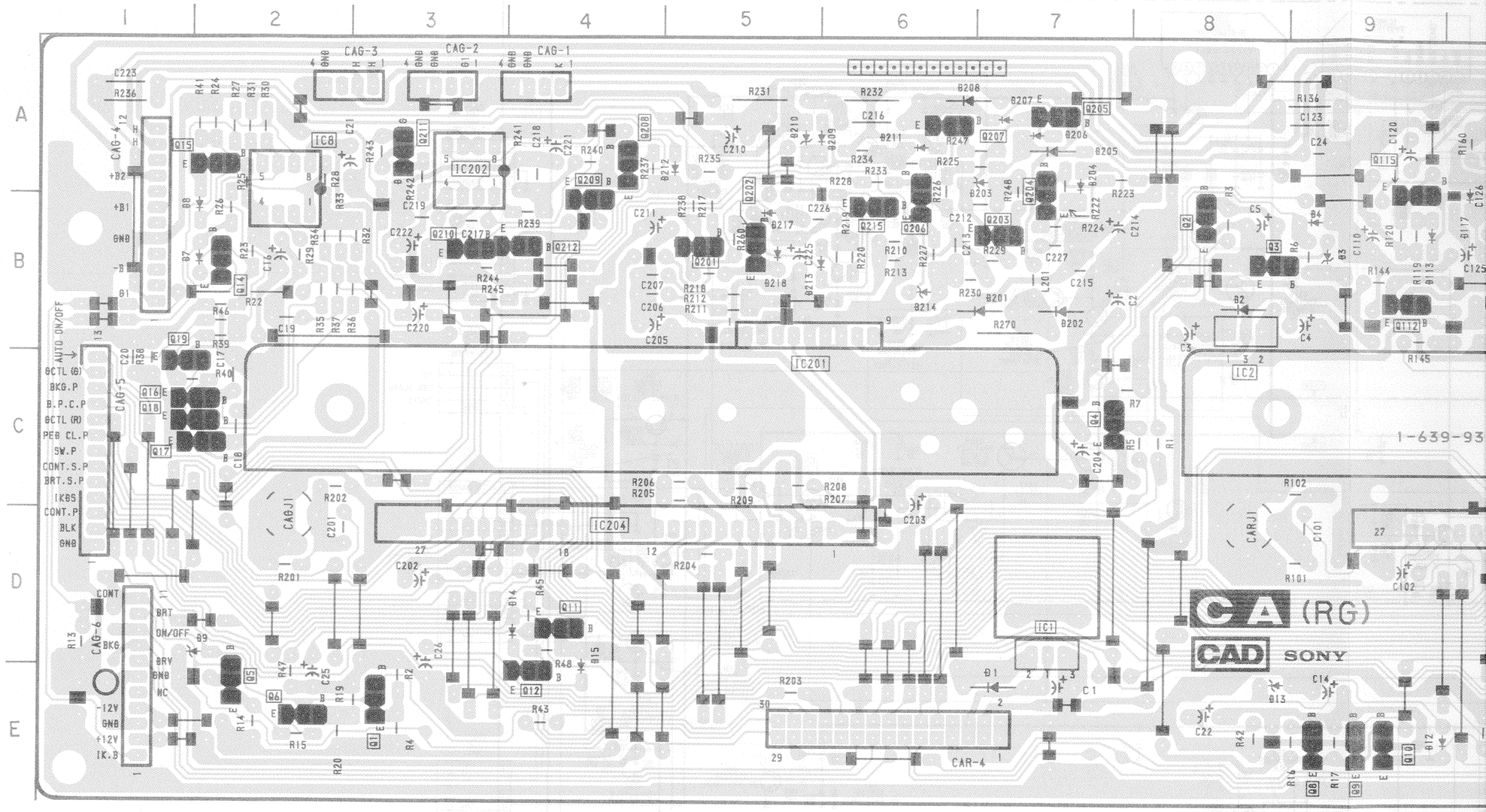
VPH-1272QM/Q
RM-1271

CA(RG) [VIDEO OUT R.G]

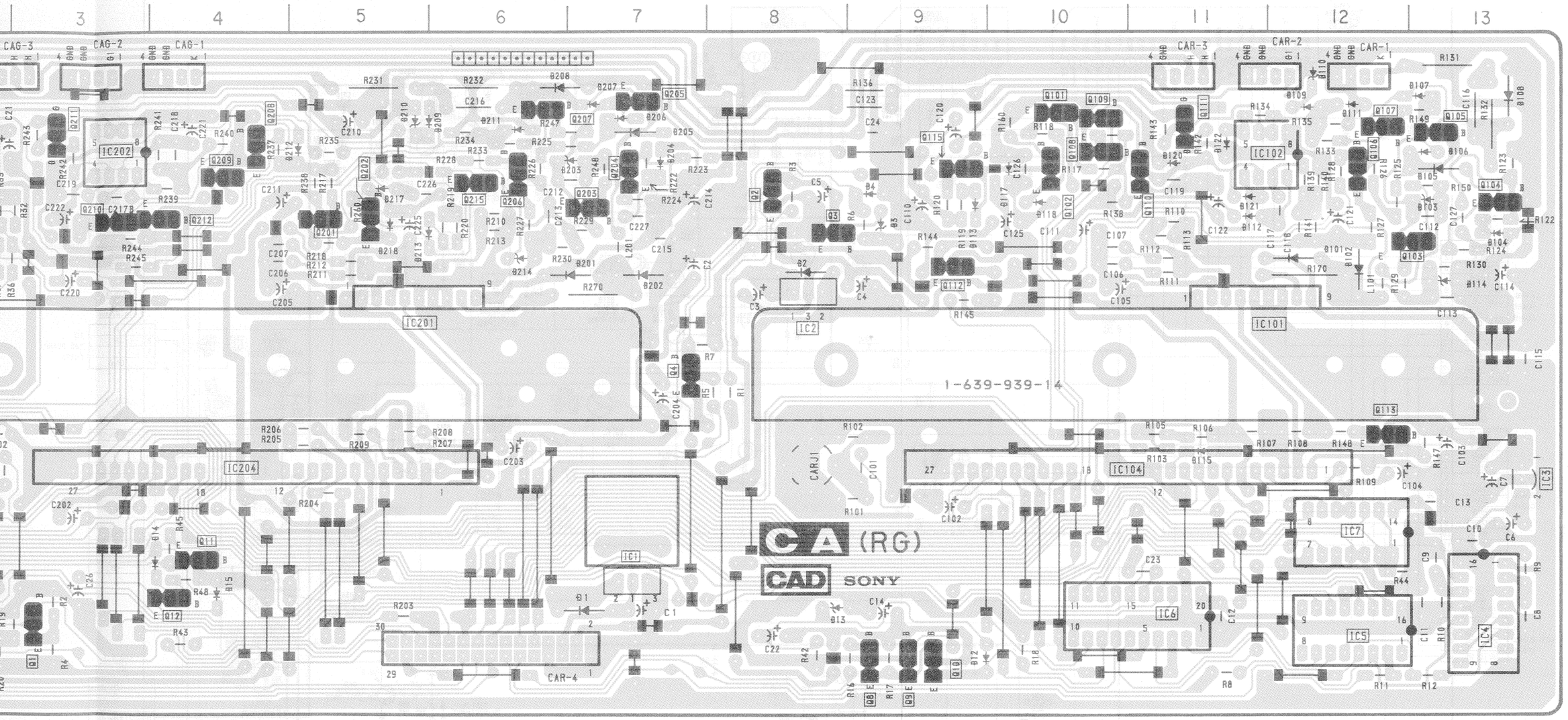
CA(RG) BOARD

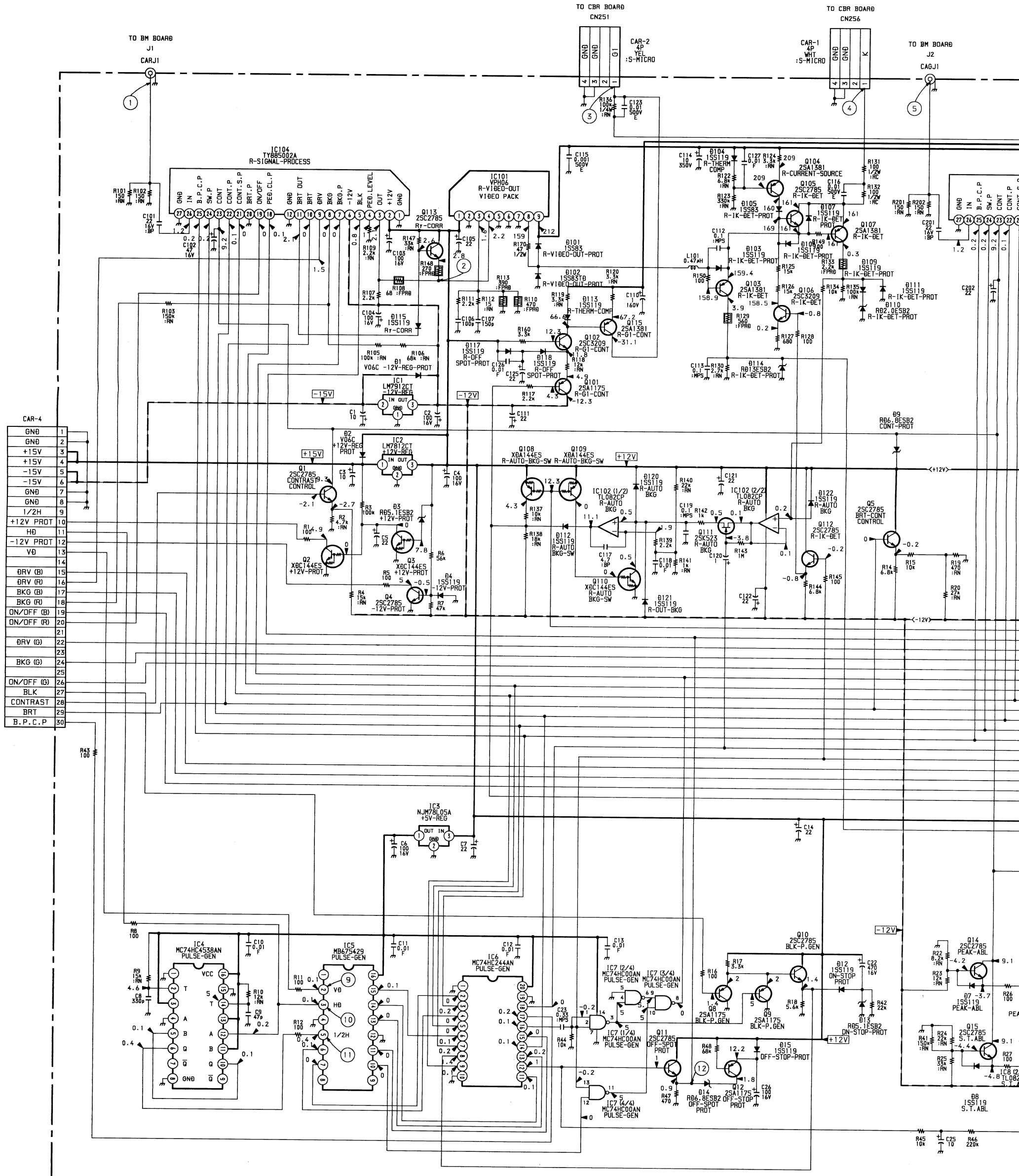
IC		Q207	A-6
IC1	D-7	Q208	A-4
IC2	B-8	Q209	A-4
IC3	D-13	Q210	B-3
IC4	E-13	Q211	A-3
IC5	E-12	Q212	B-4
IC6	E-11	Q215	B-6
IC7	D-12	**DIODE**	
IC8	A-2	D1	E-7
IC101	B-11	D2	B-8
IC102	A-11	D3	B-9
IC104	D-10	D4	B-9
IC201	B-5	D7	B-2
IC202	A-3	D8	B-2
IC204	D-4	D9	D-2
TRANSISTOR		D12	E-9
Q1	E-3	D13	E-8
Q2	B-8	D14	D-4
Q3	B-8	D15	E-4
Q4	C-7	D101	B-12
Q5	E-2	D102	B-12
Q8	E-9	D103	B-13
Q9	E-9	D104	B-13
Q10	E-9	D105	A-13
Q11	D-4	D106	A-13
Q12	E-4	D107	A-13
Q14	B-2	D109	A-12
Q15	A-2	D110	A-12
Q16	C-1	D111	A-12
Q17	C-1	D112	B-11
Q18	C-1	D113	B-9
Q19	C-1	D114	B-13
Q101	A-10	D115	D-14
Q102	B-10	D117	A-10
Q103	B-13	D118	B-10
Q104	B-13	D120	A-11
Q105	A-13	D121	B-11
Q106	A-12	D122	A-11
Q107	A-12	D201	B-7
Q108	A-10	D202	B-7
Q109	A-10	D203	A-6
Q110	B-11	D204	A-7
Q111	A-11	D205	A-7
Q112	B-9	D206	A-7
Q113	C-12	D207	A-7
Q115	A-9	D209	A-5
Q201	B-5	D210	A-5
Q202	B-5	D211	A-6
Q203	B-7	D212	A-5
Q204	A-7	D213	B-5
Q205	A-7	D214	B-6
Q206	B-6	D217	B-5
		D218	B-5

– CA(RG) BOARD –



VPH-1272QM/Q
RM-1271





CA(RG) BOARD

① 1.2Vp-p (H)	② 4.4Vp-p (H)	③ 20Vp-p (H)	④ 140Vp-p (H)	⑤
⑦ 20Vp-p (H)	⑧ 160Vp-p (H)	⑨ 4Vp-p (H)	⑩ 4Vp-p (H)	⑪

TO BM BOARD
J2
CAGJ1

TO CBR BOARD
CN253
CAR-3
4P
RED
:S-MICRO

TO CBG BOARD
CN261
CAG-2
4P
YEL
:S-MICRO

TO CBG BOARD
CN263
CAG-3
4P
RED
:S-MICRO

TO CBG BOARD
CN266
CAG-1
4P
WHT
:S-MICRO

CAG-4
12P
BLK
:S-MICRO

12	H
11	H
10	
9	+B2
8	
7	+B1
6	
5	GND
4	
3	-B
2	
1	G1

TO CA (B) BOARD
CAB-4

IC204
TY885002A
G-SIGNAL-PROCESS

IC201
VPH06
G-VIDEO-OUT
VIDEO PACK

CAG-5
13P
WHT
:S-MICRO

1	GND
2	BLK
3	CONT.P
4	IKDS
5	BRT.S.P
6	CONT.S.P
7	SW.P
8	PED CL.P
9	GCTL (R)
10	B.P.C.P
11	BKG.P
12	GCTL (G)
13	AUTO ON/OFF

TO CA (B) BOARD
CAB-5

CAG-6
11P
WHT
:S-MICRO

1	IK.B
2	+12V
3	GND
4	-12V
5	BKG.S.P
6	GND
7	DRV
8	BKG
9	ON/OFF
10	BRT
11	CONT

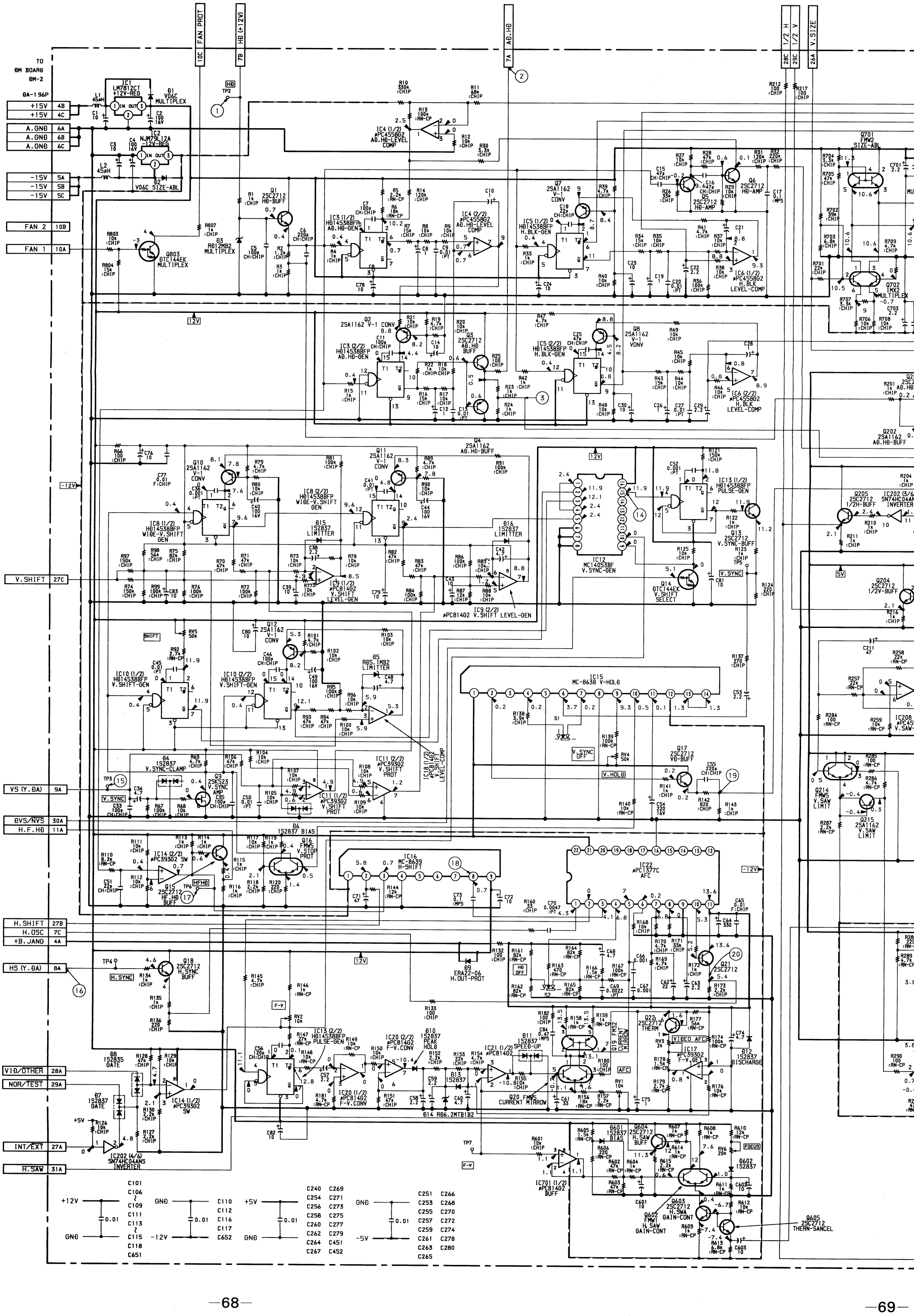
TO CA (B) BOARD
CAB-6

CA (RG)

(VIDEO OUT R, G)

B-SS1550<U/C>-CARG

5	140Vp-p (H)
6	1.4Vp-p (H)
11	5.8Vp-p (H)
12	4Vp-p (H)


TO ØM BOARØ ØM-2
ØA-196P
+15V 4B
+15V 4C
A.GNØ 6A
A.GNØ 6B
A.GNØ 6C
-15V 5A
-15V 5B
-15V 5C
FAN 2 10B
FAN 1 10A
V.SHIFT 27C
VS (Y.ØA) 9A
ØVS/NVS 30A
H.F.HØ 11A
H.SHIFT 27B
H.OSC 7C
+B.JANG 4A
HS (Y.ØA) 8A
VIØ/OTHER 28A
NOR/TEST 29A
INT/EXT 27A
H.SAW 31A
FAN PROT 10C
HØ (+12V) 7B
ØØ. HØ 7A
1/2 H 28C
1/2 V 29C
V.SIZE 26A
IC1 LM7812CT +12V-REG
IC2 NJM79L12A -12V-REG
Ø1 V06C MULTIPLEX
Ø2 V06C SIZE-ABL
Ø3 RØ12MB2 MULTIPLEX
Q1 2SC2712 HØ-BUFF
Q803 ØTC144EK MULTIPLEX
IC3 (1/2) HØ14538BFP AØ.HØ-GEN
IC3 (2/2) HØ14538BFP AØ.HØ-GEN
IC4 (1/2) μPC4558G2 AØ.HØ-LEVEL COMP
IC4 (2/2) μPC4558G2 AØ.HØ-LEVEL COMP
Q2 2SA1162 V-I CONV
Q3 2SC2712 AØ.HØ BUFF
IC5 (1/2) HØ14538BFP H.BLK-GEN
IC5 (2/2) HØ14538BFP H.BLK-GEN
Q7 2SA1162 V-I CONV
Q8 2SA1162 V-I VONV
Q5 2SC2712 HØ-AMP
Q6 2SC2712 HØ-AMP
IC6 (1/2) μPC4558G2 H.BLK LEVEL-COMP
IC6 (2/2) μPC4558G2 H.BLK LEVEL-COMP
Q701 FMW2 SIZE-ABL
Q702 IMX2 MULTIPLEX
Q4 2SA1162 AØ.HØ-BUFF
Q10 2SA1162 V-I CONV
Q11 2SA1162 V-I CONV
IC8 (1/2) HØ14538BFP WIØE-V.SHIFT GEN
IC8 (2/2) HØ14538BFP WIØE-V.SHIFT GEN
Ø15 1S2837 LIMITTER
Ø16 1S2837 LIMITTER
IC9 (1/2) μPC814G2 V.SHIFT LEVEL-GEN
IC9 (2/2) μPC814G2 V.SHIFT LEVEL-GEN
IC12 MC14053BF V.SYNC-GEN
IC13 (1/2) HØ14538BFP PULSE-GEN
Q13 2SC2712 V.SYNC-BUFF
Q14 ØTC144EK V.SHIFT SELECT
V.SYNC
Q12 2SA1162 V-I CONV
IC10 (1/2) HØ14538BFP V.SHIFT-GEN
IC10 (2/2) HØ14538BFP V.SHIFT-GEN
Ø5 RØ5-1MB2 LIMITTER
IC15 MC-8638 V-HOLØ
V.SYNC OFF
Q17 2SC2712 VØ-BUFF
V.HOLØ
Ø4 1S2837 V.SYNC-CLAMP
Q9 2SK523 V.SYNC AMP
IC11 (1/2) μPC3362 V.SHIFT PROT
IC11 (2/2) μPC3362 V.SHIFT PROT
IC18 (1/2) μPC814G2 V.SHIFT LEVEL-COMP
Ø6 1S2837 BIAS
Q16 FMW5 V.STOP PROT
IC14 (2/2) μPC3362 SW
Q15 2SC2712 HF.HØ BUFF
IC16 MC-8639 H-SHIFT
IC22 μPC1377C AFC
IC12 MC14053BF V.SYNC-GEN
Ø9 ERA22-06 H.OUT-PROT
Q18 2SC2712 H.SYNC BUFF
IC13 (2/2) HØ14538BFP PULSE-GEN
IC20 (2/2) μPC814G2 F-V.CONV
IC20 (1/2) μPC814G2 F-V.CONV
Ø10 1S2837 PEAK HOLØ
IC21 (1/2) μPC814G2
Ø11 1S2837 SPEED-UP
Q19 FMG2 CURRENT MIRROR
Q20 FMG5 CURRENT MIRROR
IC17 μPC393G2 F-V.DET
Ø12 1S2837 ØISCHARGE
Ø13 1S2837
Ø14 RØ6.2MTB1B2
Ø8 1S2835 GATE
Ø7 1S2837 GATE
IC14 (1/2) μPC3362 SW
IC202 (4/6) SN74HC04ANS INVERTER
Q601 1S2837 BIAS
Q604 2SC2712 H.SAW BUFF
Q602 FMW1 H.SAW GAIN-CONT
Q603 2SC2712 H.SAW GAIN-CONT
Q605 2SC2712 THERM-SANCEL
IC701 (1/2) μPC814G2 BUFF
Q202 2SA1162 AØ.HØ-BUFF
Q205 2SC2712 1/2H-BUFF
IC202 (3/6) SN74HC04ANS INVERTER
Q204 2SC2712 1/2V-BUFF
Q214 FMW5 V.SAW LIMIT
Q215 2SA1162 V.SAW LIMIT
IC208 μPC45 V.SAW-
+12V
-12V
+5V
-5V
GNØ
5V
SHIFT
F-V
HFHØ
H.SYNC
V.SYNC
HØ OFF
V.HOL
VIDEO AFC
AFC
FOCUS
S1
S2

DA

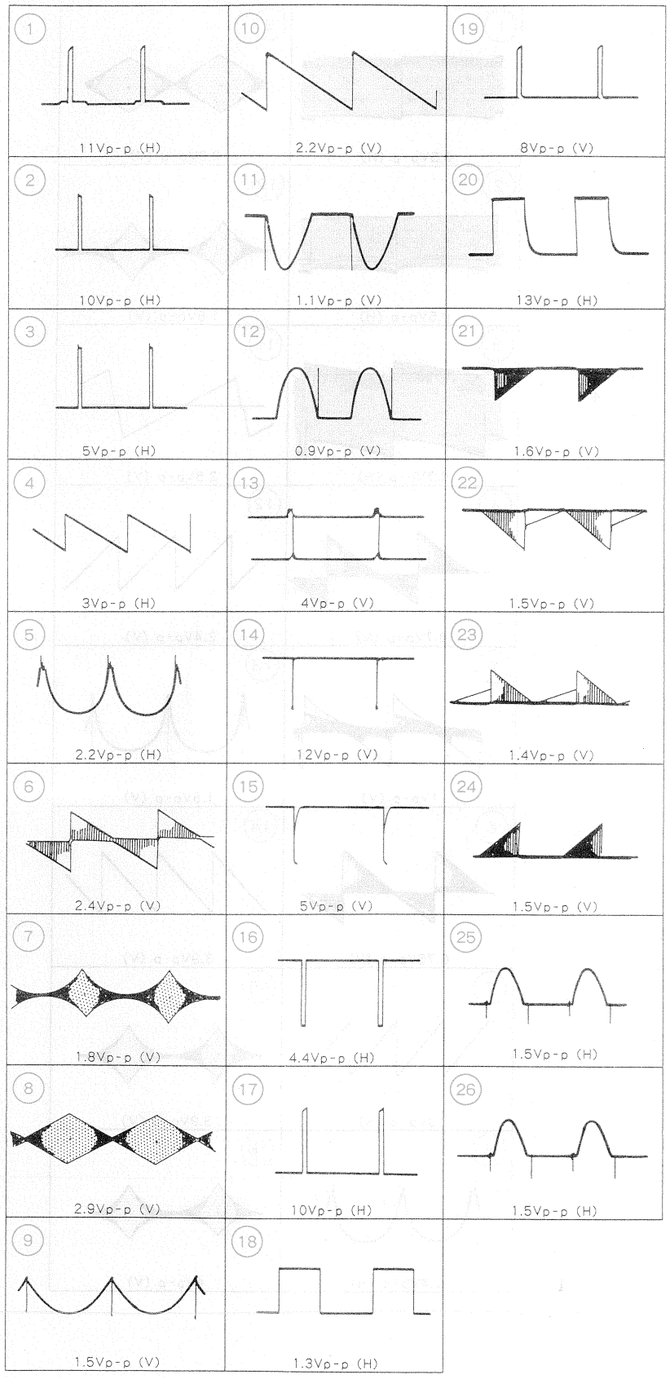
(LARGE WAVEFORM GENERATOR)

B-SS1550<U/C>-DA.

DA

[LARGE WAVEFORM GENERATOR]

DA BOARD



DA BOARD (COMPONENT SIDE)

IC

IC1	E-8
IC2	E-10
IC4	A-9
IC6	A-8
IC7	B-7
IC9	C-9
IC11	D-7
IC12	B-10
IC14	A-10
IC15	A-5
IC16	D-9
IC17	E-9
IC18	C-9
IC20	C-9
IC21	D-9
IC22	D-9
IC201	C-5
IC202	B-5
IC203	D-2
IC204	D-3
IC205	D-3
IC206	D-4
IC207	D-4
IC208	A-2
IC209	A-2
IC210	E-1
IC211	A-3
IC212	A-3
IC214	E-1
IC215	D-1
IC216	C-2
IC401	E-2
IC402	E-3
IC601	A-6
IC701	E-10

TRANSISTOR

Q9	E-7
Q16	B-6
Q19	C-10
Q20	C-10
Q22	E-9
Q206	B-1
Q207	A-1
Q208	B-1
Q209	A-1
Q210	B-1
Q211	A-1
Q214	B-2
Q216	C-2
Q217	B-2
Q218	C-2
Q219	B-3
Q220	B-3
Q221	B-2
Q224	B-3
Q225	A-3
Q226	B-4
Q227	A-4
Q228	A-3
Q229	A-4
Q232	C-1
Q234	C-1
Q236	B-1
Q238	B-1
Q602	A-7
Q604	B-7
Q701	B-4
Q702	A-4
Q703	B-5
Q704	B-5
Q705	B-4
Q706	A-5
Q709	D-5
Q801	A-9
Q802	E-8

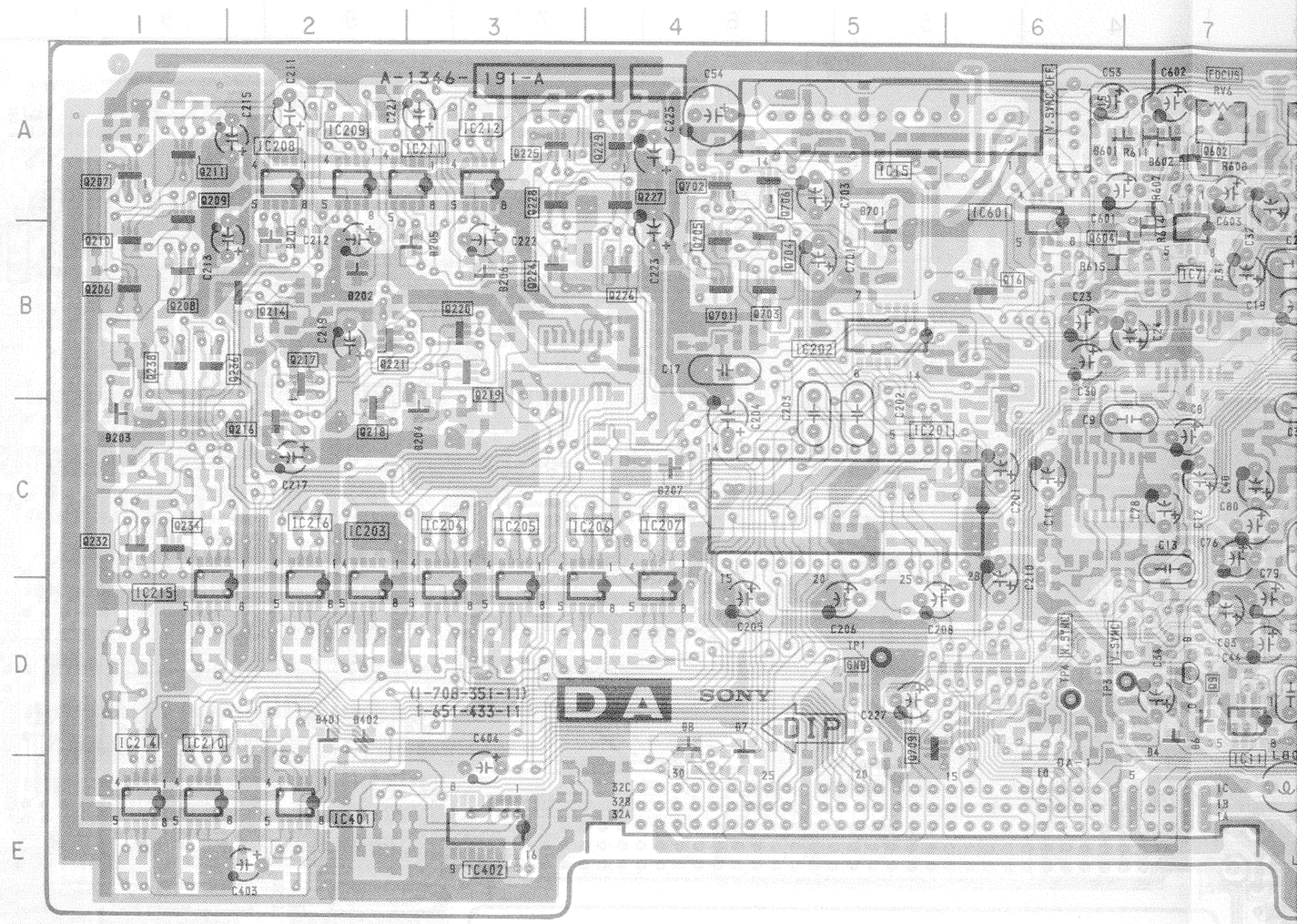
DIODE

D1	E-9
D2	E-10
D3	A-9
D4	D-7
D5	B-9
D6	D-7
D7	D-4
D8	D-4
D9	E-8
D10	C-9
D12	E-9
D201	B-2
D202	B-2
D203	C-1
D204	C-3
D205	B-3
D206	B-3
D207	C-4
D401	D-2
D402	D-2
D601	A-7
D602	A-7
D701	B-5

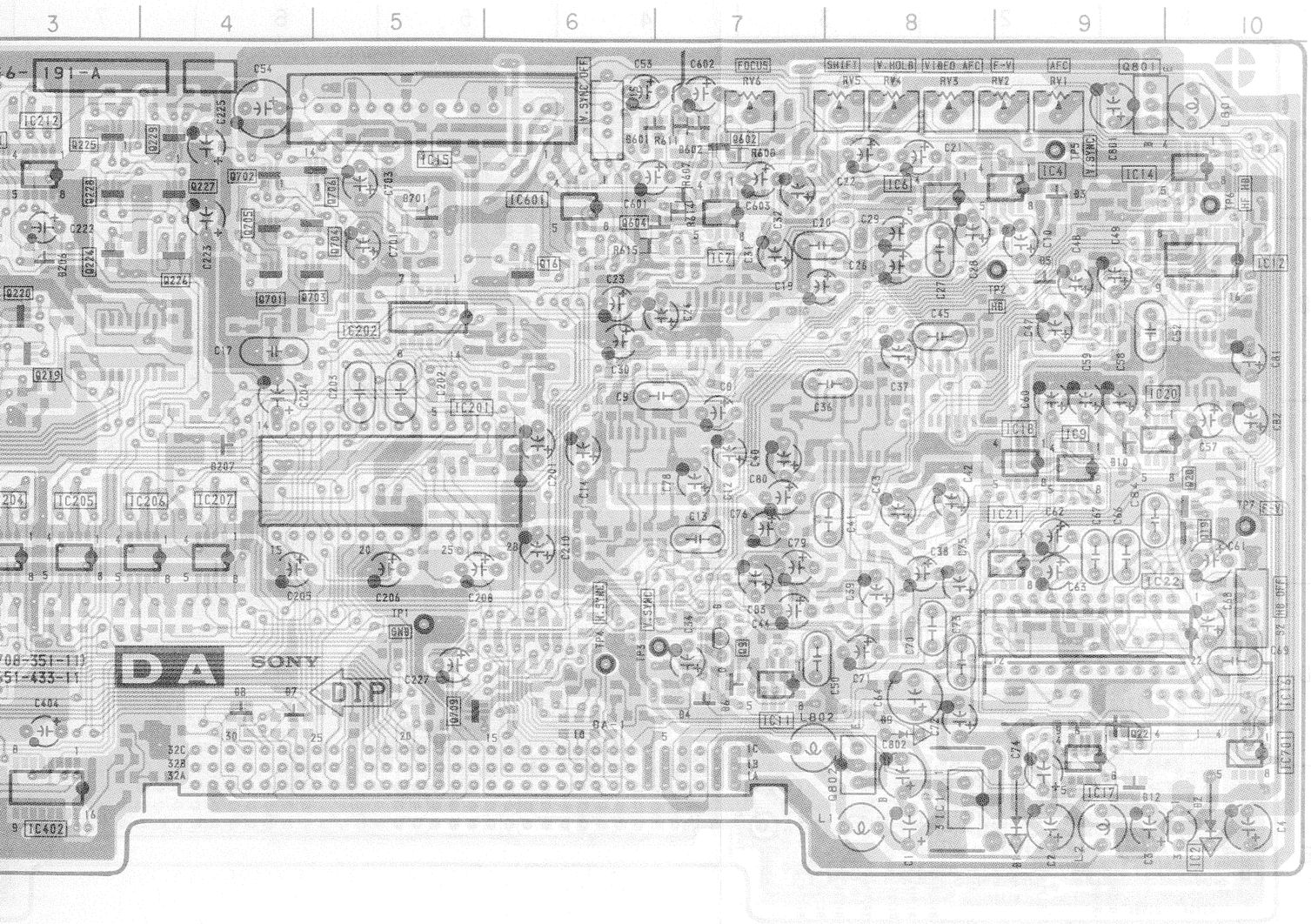
VARIABLE RESISTOR

RV1	A-9
RV2	A-9
RV3	A-8
RV4	A-8
RV5	A-8
RV6	A-7

– DA BOARD – ＜Component Side＞

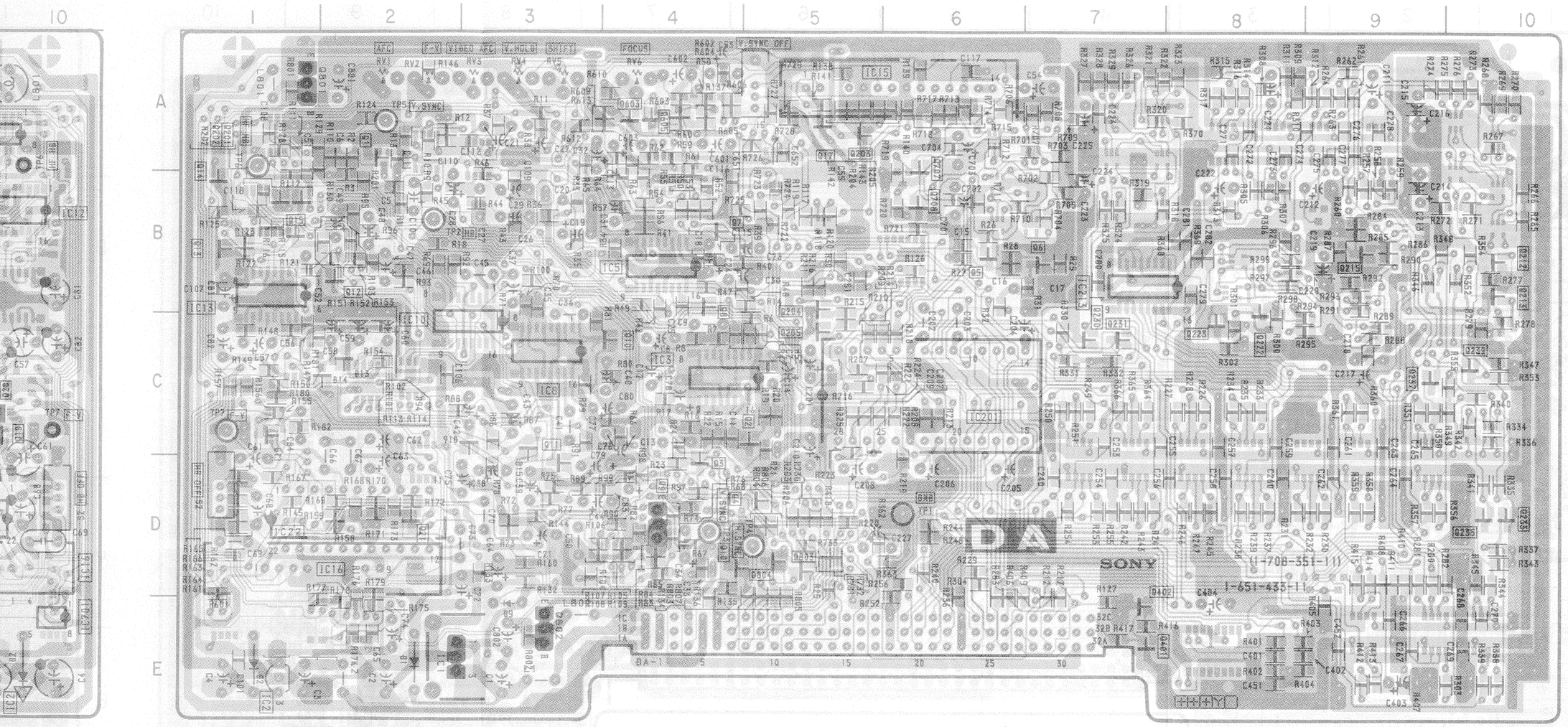


<Conductor Side>



VPH-1272QM/Q
RM-1271
VPH-1272QM/Q
RM-1271

<Conductor Side>



DA BOARD
(CONDUCTOR SIDE)

IC	
IC1	E-2
IC2	E-1
IC3	C-4
IC5	B-4
IC8	C-3
IC10	C-2
IC13	B-1
IC15	A-5
IC16	D-2
IC22	D-1
IC201	C-6
IC213	B-7

TRANSISTOR	
Q1	A-2
Q2	C-5
Q3	D-4
Q4	D-5
Q5	B-6
Q6	B-7
Q7	B-4
Q8	B-4
Q9	D-4
Q10	C-4
Q11	C-3
Q12	B-2
Q13	B-1
Q14	B-1
Q15	B-1
Q17	A-5
Q18	D-4
Q21	D-2
Q201	B-1
Q202	B-1
Q203	A-5
Q204	B-5
Q205	C-5
Q212	B-10
Q213	B-10
Q215	B-9
Q222	C-8
Q223	C-8
Q230	C-7
Q231	C-7
Q233	D-10
Q235	D-10
Q237	C-9
Q239	C-10
Q401	E-7
Q402	E-7
Q603	A-4
Q605	A-4
Q707	B-6
Q708	B-6
Q801	A-1
Q802	E-3
Q803	D-5

DIODE	
D1	E-2
D2	E-1
D9	E-3
D11	C-1
D13	C-2
D15	D-3
D16	C-3

VARIABLE RESISTOR	
RV1	A-2
RV2	A-2
RV3	A-3
RV4	A-3
RV5	A-3
RV6	A-4

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

VPH-1272QM/Q
RM-1271

VPH-1272QM/Q
RM-1271

DB

[ELECTRONIC VR]

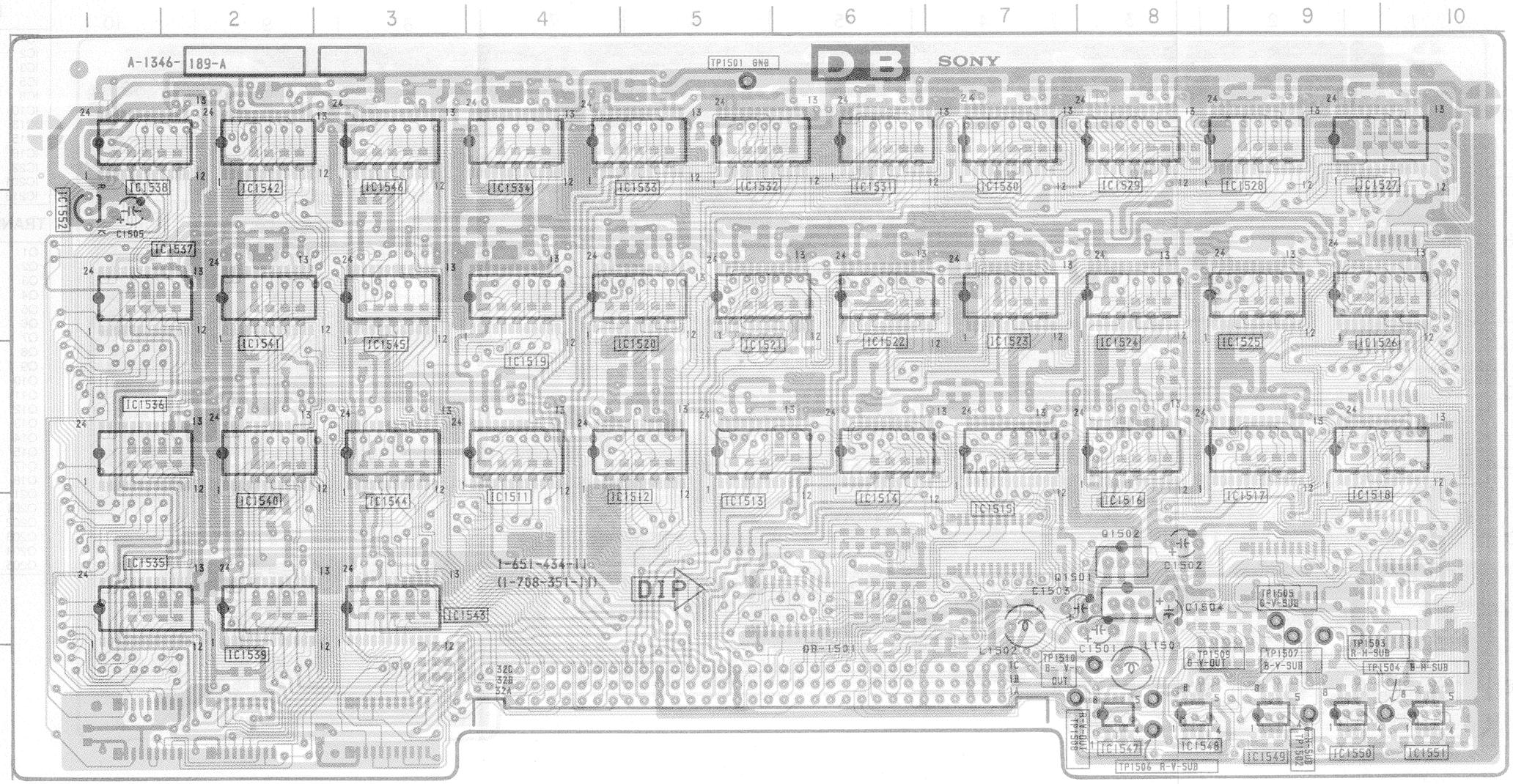
DB BOARD
(COMPONENT SIDE)

– DB BOARD –

＜Component Side＞

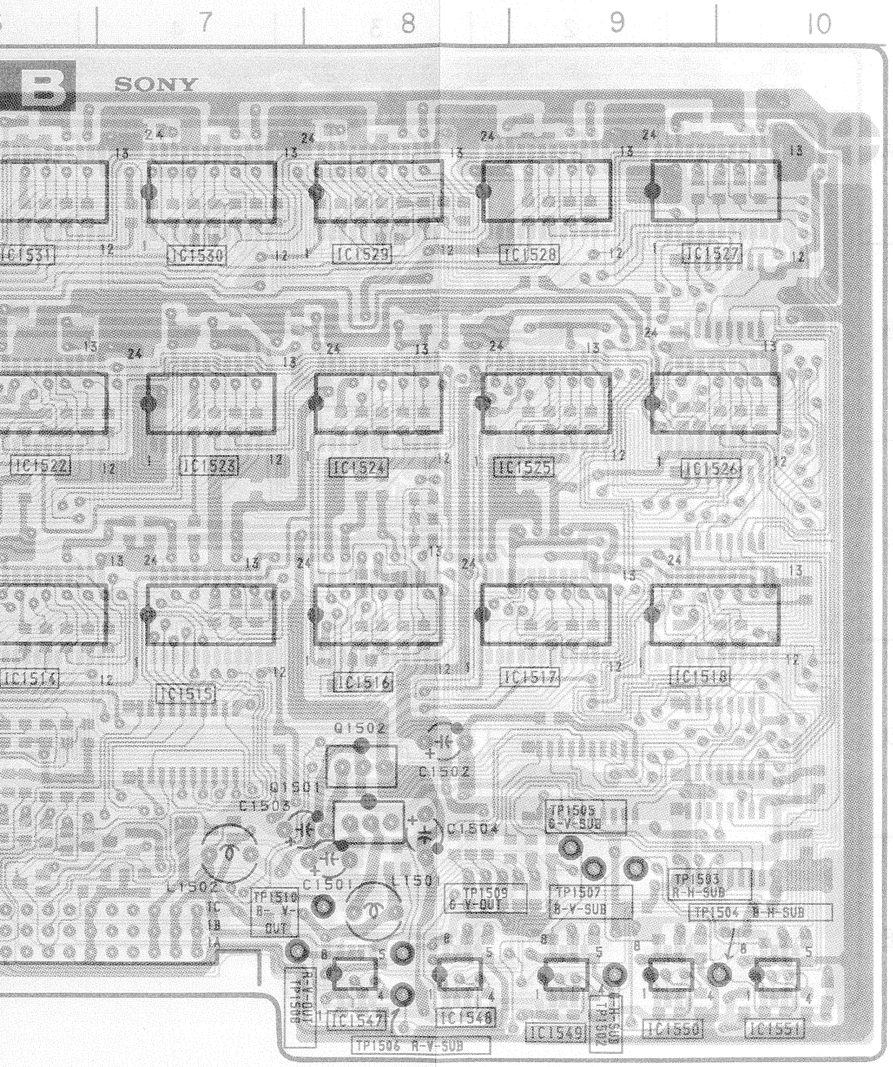
IC	
IC1511	C-4
IC1512	C-5
IC1513	C-5
IC1514	C-6
IC1515	C-7
IC1516	C-8
IC1517	C-9
IC1518	C-10
IC1519	B-4
IC1520	B-5
IC1521	B-5
IC1522	B-6
IC1523	B-7
IC1524	B-8
IC1525	B-9
IC1526	B-10
IC1527	A-10
IC1528	A-9
IC1529	A-8
IC1530	A-7
IC1531	A-6
IC1532	A-5
IC1533	A-5
IC1534	A-4
IC1535	D-1
IC1536	C-1
IC1537	B-1
IC1538	A-1
IC1539	D-2
IC1540	C-2
IC1541	B-2
IC1542	A-2
IC1543	D-3
IC1544	C-3
IC1545	B-3
IC1546	A-3
IC1547	E-8
IC1548	E-8
IC1549	E-9
IC1550	E-9
IC1551	E-10
IC1552	B-1

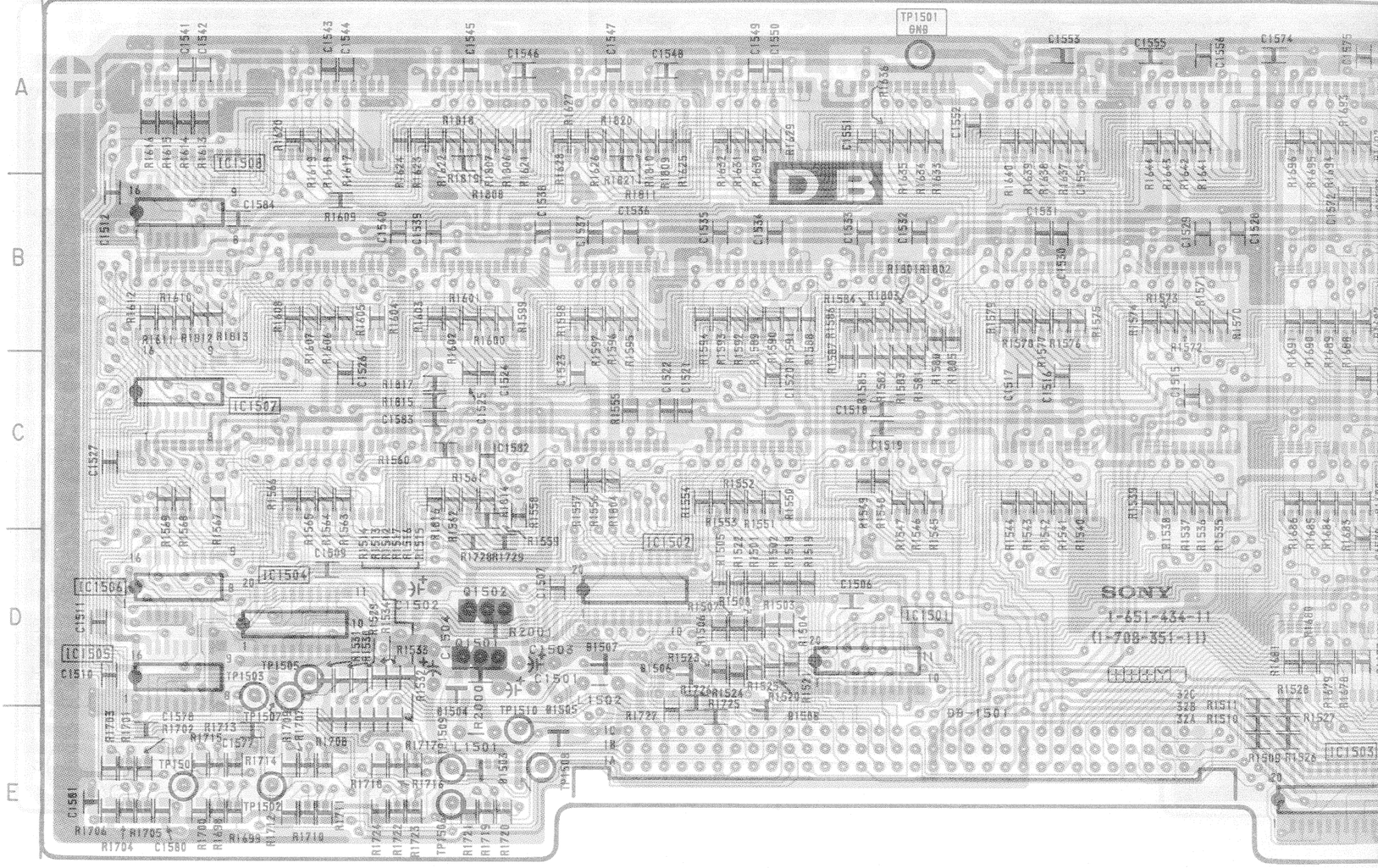
TRANSISTOR	
Q1501	D-8
Q1502	D-8

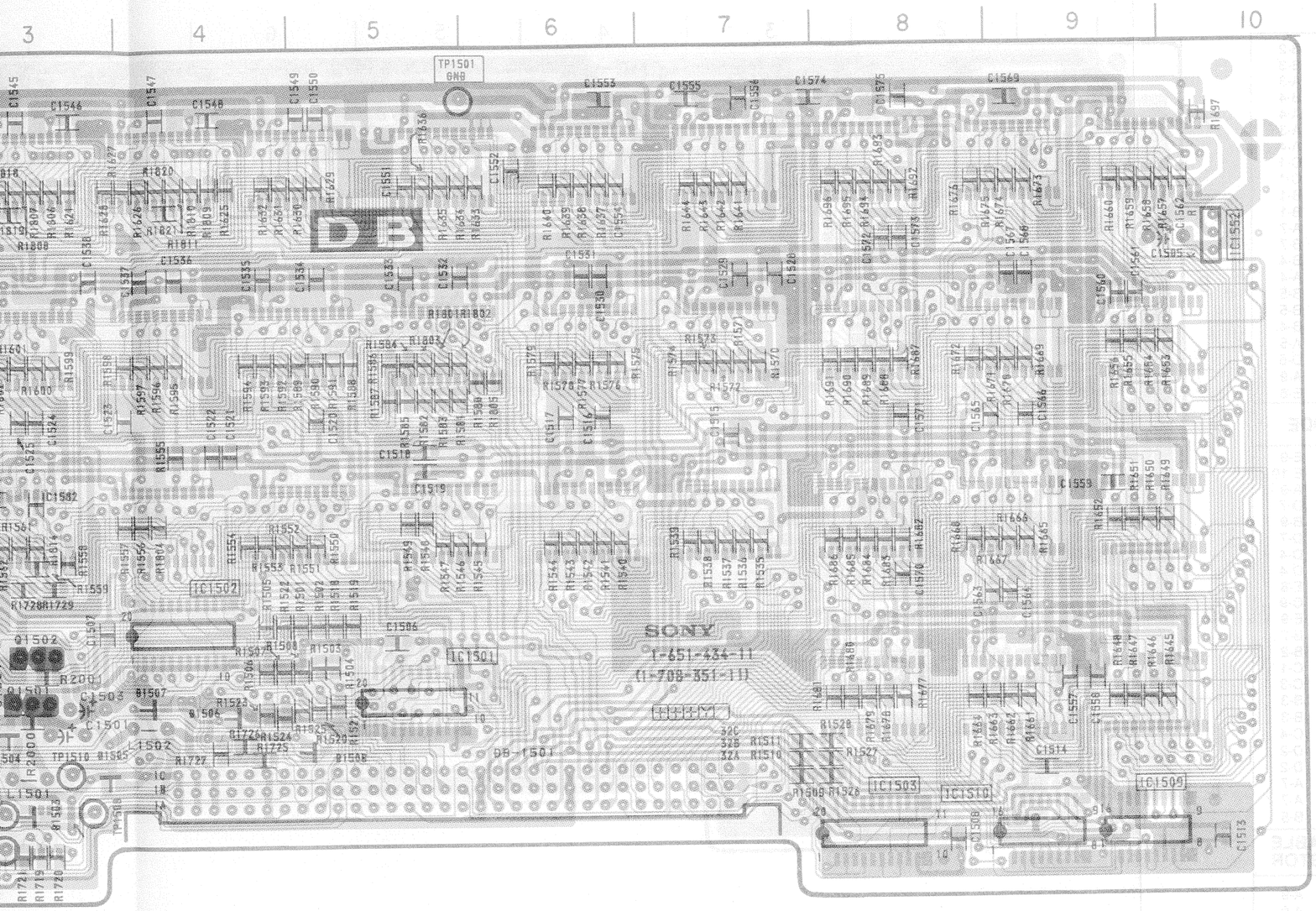


VPH-1272QM/Q
RM-1271

<Conductor Side>





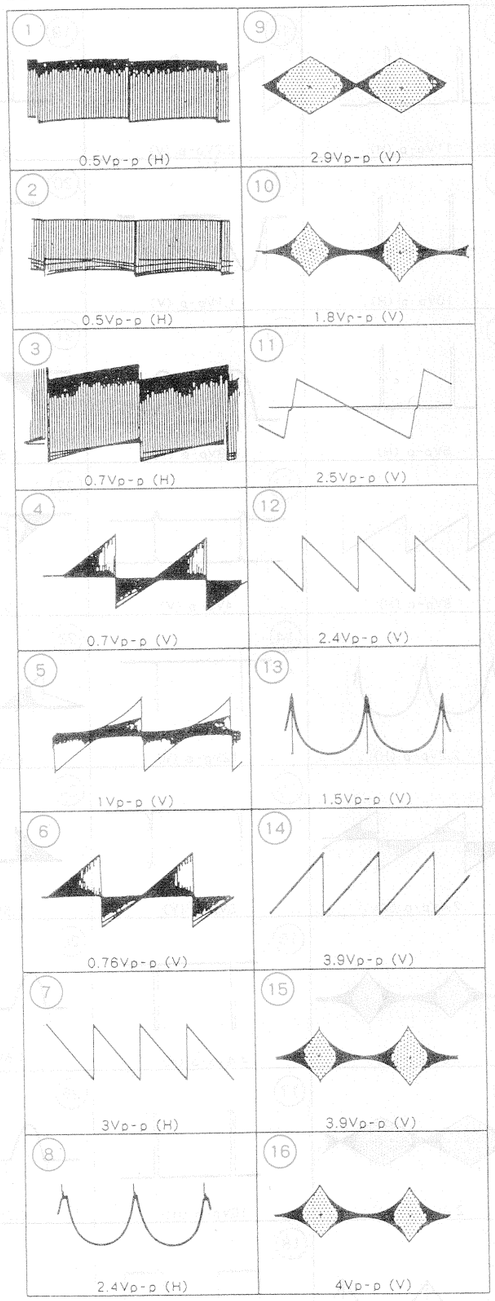


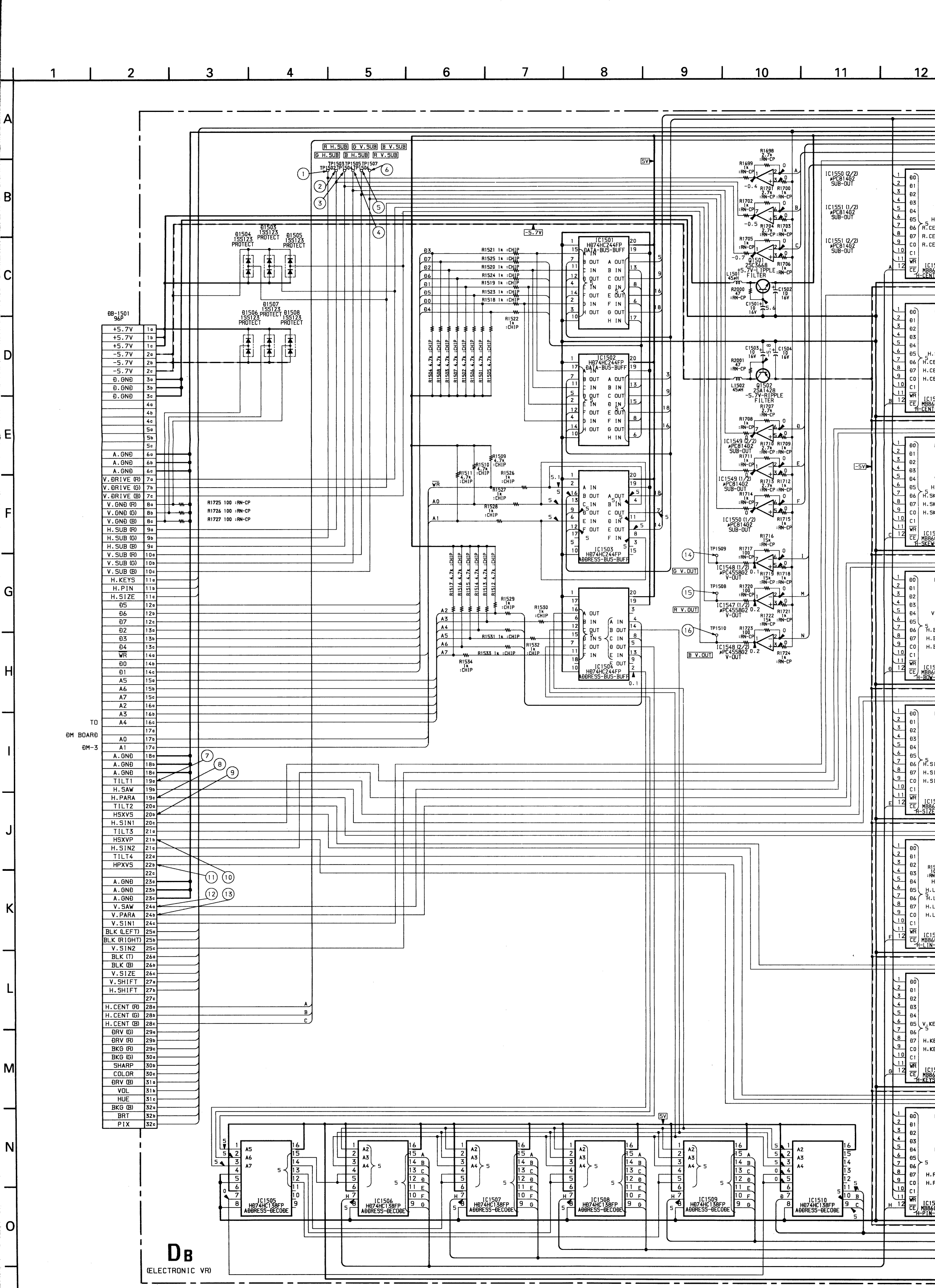
DB BOARD (CONDUCTOR SIDE)

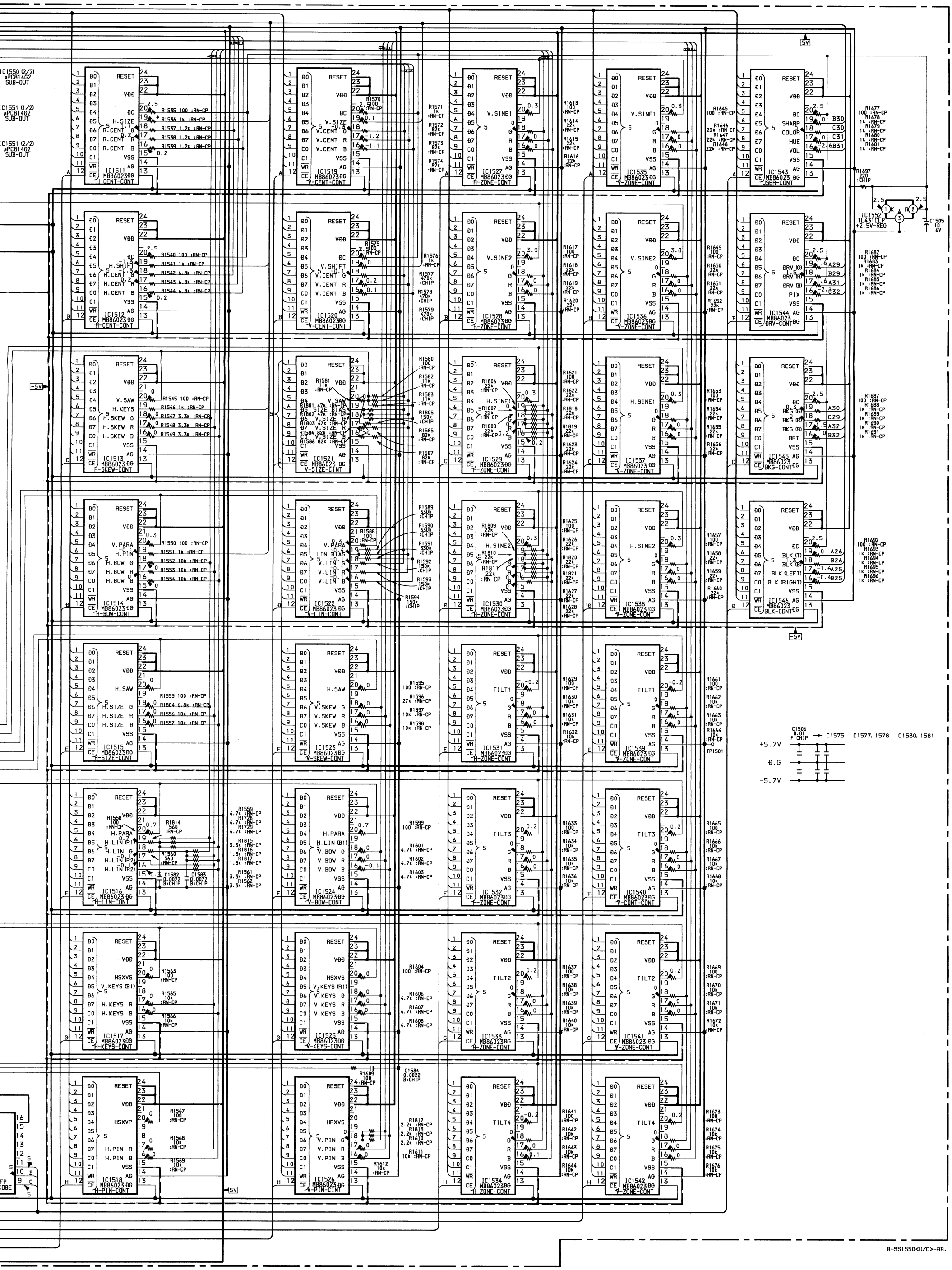
IC	
IC1501	D-5
IC1502	D-4
IC1503	E-8
IC1504	D-2
IC1505	D-1
IC1506	D-1
IC1507	C-1
IC1508	B-1
IC1509	E-9
IC1510	E-9
IC1552	B-10
TRANSISTOR	
Q1501	D-3
Q1502	D-3
DIODE	
D1503	E-3
D1504	D-3
D1505	E-3
D1506	D-4
D1507	D-4
D1508	E-5

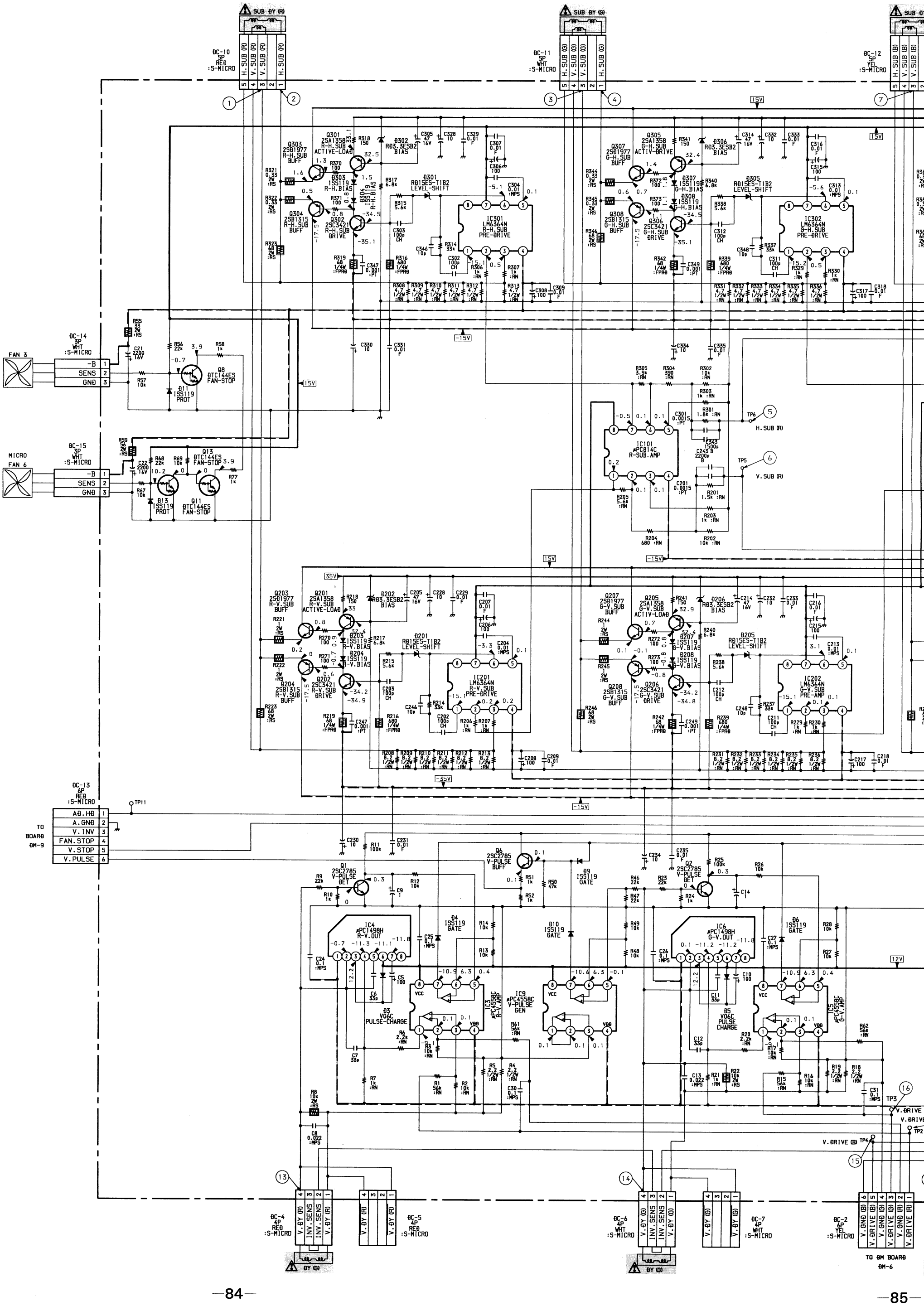
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

DB BOARD




ΘB-1501
96P
+5.7V
Θ.GNΘ
A.GNΘ
V.ΘRIVE (R)
V.ΘRIVE (G)
V.ΘRIVE (B)
V.GNΘ (R)
V.GNΘ (G)
V.GNΘ (B)
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
H.KEYS
H.PIN
H.SIZE
Θ5
Θ6
Θ7
Θ2
Θ3
Θ4
WR
Θ0
Θ1
A5
A6
A7
A2
A3
A4
A0
A1
TILT1
H.SAW
H.PARA
TILT2
HSXVS
H.SIN1
TILT3
HSXVP
H.SIN2
TILT4
HPXVS
V.SAW
V.PARA
V.SIN1
BLK (LEFT)
BLK (RIGHT)
V.SIN2
BLK (T)
BLK (B)
V.SIZE
V.SHIFT
H.SHIFT
H.CENT (R)
H.CENT (G)
H.CENT (B)
ΘRV (G)
ΘRV (R)
BKG (R)
BKG (G)
SHARP
COLOR
ΘRV (B)
VOL
HUE
BKG (B)
BRT
PIX
TO ΘM BOARΘ ΘM-3
R H.SUB
G H.SUB
B H.SUB
G V.SUB
B V.SUB
R V.SUB
TP1502 TP1503 TP1504 TP1505 TP1506 TP1507
Θ1503 1SS123 PROTECT
Θ1504 1SS123 PROTECT
Θ1505 1SS123 PROTECT
Θ1506 1SS123 PROTECT
Θ1507 1SS123 PROTECT
Θ1508 1SS123 PROTECT
R1725 100 :RN-CP
R1726 100 :RN-CP
R1727 100 :RN-CP
-5.7V
5V
IC1501 HΘ74HC244FP ΘATA-BUS-BUFF
IC1502 HΘ74HC244FP ΘATA-BUS-BUFF
IC1503 HΘ74HC244FP ΑΘΘRESS-BUS-BUFF
IC1504 HΘ74HC244FP ΑΘΘRESS-BUS-BUFF
R1521 1k :CHIP
R1525 1k :CHIP
R1520 1k :CHIP
R1524 1k :CHIP
R1519 1k :CHIP
R1523 1k :CHIP
R1518 1k :CHIP
R1522 1k :CHIP
R1504 4.7k :CHIP
R1508 4.7k :CHIP
R1506 4.7k :CHIP
R1507 4.7k :CHIP
R1502 4.7k :CHIP
R1501 4.7k :CHIP
R1505 4.7k :CHIP
R1509 4.7k :CHIP
R1510 4.7k :CHIP
R1511 4.7k :CHIP
R1526 1k :CHIP
R1527 1k :CHIP
R1528 1k :CHIP
R1517 4.7k :CHIP
R1516 4.7k :CHIP
R1515 4.7k :CHIP
R1514 4.7k :CHIP
R1513 4.7k :CHIP
R1512 4.7k :CHIP
R1529 1k :CHIP
R1530 1k :CHIP
R1531 1k :CHIP
R1532 1k :CHIP
R1533 1k :CHIP
R1534 1k :CHIP
R1698 2.7k :RN-CP
R1699 1k :RN-CP
R1701 2.7k :RN-CP
R1700 1k :RN-CP
R1702 1k :RN-CP
R1704 2.7k :RN-CP
R1703 1k :RN-CP
R1705 1k :RN-CP
R1706 1k :RN-CP
Q1501 2SC3668 +5.7V-RIPPLE FILTER
L1501 45μH
R2000 47 :RN-CP
C1501 10 16V
C1502 10 16V
C1503 10 16V
C1504 10 16V
R2001 47 :RN-CP
L1502 45μH
Q1502 2SA1428 -5.7V-RIPPLE FILTER
R1707 2.7k :RN-CP
R1708 1k :RN-CP
R1710 2.7k :RN-CP
R1709 1k :RN-CP
R1711 1k :RN-CP
R1713 2.7k :RN-CP
R1712 1k :RN-CP
R1714 1k :RN-CP
R1715 1k :RN-CP
R1716 15k :RN-CP
R1717 100 :RN-CP
R1719 15k :RN-CP
R1718 1k :RN-CP
R1720 100 :RN-CP
R1722 15k :RN-CP
R1721 1k :RN-CP
R1723 100 :RN-CP
R1724 1k :RN-CP
IC1550 (2/2) μPC8146Z SUB-OUT
IC1551 (1/2) μPC8146Z SUB-OUT
IC1551 (2/2) μPC8146Z SUB-OUT
IC1549 (2/2) μPC8146Z SUB-OUT
IC1549 (1/2) μPC8146Z SUB-OUT
IC1550 (1/2) μPC8146Z SUB-OUT
IC1548 (1/2) μPC4558G2 V-OUT
IC1547 (1/2) μPC4558G2 V-OUT
IC1548 (2/2) μPC4558G2 V-OUT
TP1509
TP1508
TP1510
G V.OUT
R V.OUT
B V.OUT
IC1505 HΘ74HC138FP ΑΘΘRESS-ΘECOΘE
IC1506 HΘ74HC138FP ΑΘΘRESS-ΘECOΘE
IC1507 HΘ74HC138FP ΑΘΘRESS-ΘECOΘE
IC1508 HΘ74HC138FP ΑΘΘRESS-ΘECOΘE
IC1509 HΘ74HC138FP ΑΘΘRESS-ΘECOΘE
IC1510 HΘ74HC138FP ΑΘΘRESS-ΘECOΘE
ΘB
(ELECTRONIC VR)


IC1550 (2/2) μPC814G2 SUB-OUT
IC1551 (1/2) μPC814G2 SUB-OUT
IC1551 (2/2) μPC814G2 SUB-OUT
IC1511 MB86023ØG H-CENT-CONT
IC1519 MB86023ØG V-CENT-CONT
IC1527 MB86023ØG H-ZONE-CONT
IC1535 MB86023ØG V-ZONE-CONT
IC1543 MB86023ØG USER-CONT
IC1512 MB86023ØG H-CENT-CONT
IC1520 MB86023ØG V-CENT-CONT
IC1528 MB86023ØG H-ZONE-CONT
IC1536 MB86023ØG V-ZONE-CONT
IC1544 MB86023ØG DRV-CONT
IC1513 MB86023ØG H-SKEW-CONT
IC1521 MB86023ØG V-SIZE-CINT
IC1529 MB86023ØG H-ZONE-CONT
IC1537 MB86023ØG V-ZONE-CONT
IC1545 MB86023ØG BKG-CONT
IC1514 MB86023ØG H-BOW-CONT
IC1522 MB86023ØG V-LIN-CONT
IC1530 MB86023ØG H-ZONE-CONT
IC1538 MB86023ØG V-ZONE-CONT
IC1546 MB86023ØG BLK-CONT
IC1515 MB86023ØG H-SIZE-CONT
IC1523 MB86023ØG V-SKEW-CONT
IC1531 MB86023ØG H-ZONE-CONT
IC1539 MB86023ØG V-ZONE-CONT
IC1516 MB86023ØG H-LIN-CONT
IC1524 MB86023ØG V-BOW-CONT
IC1532 MB86023ØG H-ZONE-CONT
IC1540 MB86023ØG V-CONT-CONT
IC1517 MB86023ØG H-KEYS-CONT
IC1525 MB86023ØG V-KEYS-CONT
IC1533 MB86023ØG H-ZONE-CONT
IC1541 MB86023ØG V-ZONE-CONT
IC1518 MB86023ØG H-PIN-CONT
IC1526 MB86023ØG V-PIN-CINT
IC1534 MB86023ØG H-ZONE-CONT
IC1542 MB86023ØG V-ZONE-CONT
IC1552 TL431CLP +2.5V-REG
5V
-5V
TP1501
+5.7V
Ð.G
-5.7V
B-9S1550<U/C>-ØB.


SUB BY (R)
SUB BY (G)
SUB BY (B)
ØC-10 5P RED :S-MICRO
ØC-11 5P WHT :S-MICRO
ØC-12 5P YEL :S-MICRO
H.SUB (R)
V.SUB (R)
V.SUB (R)
H.SUB (R)
H.SUB (G)
V.SUB (G)
V.SUB (G)
H.SUB (G)
H.SUB (B)
V.SUB (B)
V.SUB (B)
15V
-15V
35V
-35V
12V
Q301 2SA1358 R-H.SUB ACTIVE-LOAD
Q303 2SD1977 R-H.SUB BUFF
Q304 2SB1315 R-H.SUB BUFF
Q302 2SC3421 R-H.SUB DRIVE
ØD302 RD3.3ESB2 BIAS
ØD303 1SS119 R-H.BIAS
ØD304 1SS119 R-H.BIAS
ØD301 RØ1ES-T1B2 LEVEL-SHIFT
IC301 LM6364N R-H.SUB PRE-DRIVE
Q305 2SA1358 G-H.SUB ACTIV-DRIVE
Q307 2SD1977 G-H.SUB BUFF
Q308 2SB1315 G-H.SUB BUFF
Q306 2SC3421 G-H.SUB DRIVE
ØD306 RD3.3ESB2 BIAS
ØD307 1SS119 G-H.BIAS
ØD308 1SS119 G-H.BIAS
ØD305 RØ1ES-T1B2 LEVEL-SHIFT
IC302 LM6364N G-H.SUB PRE-AMP
IC101 μPC814C R-SUB.AMP
TP6 H.SUB (R)
TP5 V.SUB (R)
Q203 2SD1977 R-V.SUB BUFF
Q201 2SA1358 R-V.SUB ACTIVE-LOAD
Q204 2SB1315 R-V.SUB BUFF
Q202 2SC3421 R-V.SUB DRIVE
ØD202 RD3.3ESB2 BIAS
ØD203 1SS119 R-V.BIAS
ØD204 1SS119 R-V.BIAS
ØD201 RØ1ES-T1B2 LEVEL-SHIFT
IC201 LM6364N R-V.SUB PRE-DRIVE
Q207 2SD1977 G-V.SUB BUFF
Q205 2SA1358 G-V.SUB ACTIV-LOAD
Q208 2SB1315 G-V.SUB BUFF
Q206 2SC3421 G-V.SUB DRIVE
ØD206 RD3.3ESB2 BIAS
ØD207 1SS119 G-V.BIAS
ØD208 1SS119 G-V.BIAS
ØD205 RØ1ES-T1B2 LEVEL-SHIFT
IC202 LM6364N G-V.SUB PRE-AMP
IC201 μPC814C R-V.SUB AMP
TP6 V.SUB (R)
TP5 H.SUB (R)
FAN 3
FAN 6
MICRO
ØC-14 3P WHT :S-MICRO
ØC-15 3P WHT :S-MICRO
-B
SENS
GNØ
Q8 ØTC144ES FAN-STOP
Q13 ØTC144ES FAN-STOP
Q11 ØTC144ES FAN-STOP
ØD11 1SS119 PROT
ØD13 1SS119 PROT
ØC-13 6P RED :S-MICRO
TO BOARØ ØM-9
AØ.HØ
A.GNØ
V.INV
FAN.STOP
V.STOP
V.PULSE
TP11
Q1 2SC2785 V-PULSE DET
Q2 2SC2785 V-PULSE DET
Q6 2SC2785 V-PULSE BUFF
ØD9 1SS119 GATE
ØD10 1SS119 GATE
ØD4 1SS119 GATE
ØD6 1SS119 GATE
IC4 μPC1498H R-V.OUT
IC6 μPC1498H G-V.OUT
IC9 μPC4558C V-PULSE GEN
IC3 μPC4558C R-V.AMP
IC5 μPC4558C G-V.AMP
ØD3 V06C PULSE-CHARGE
ØD5 V06C PULSE CHARGE
TP3 V.ØRIVE
TP2 V.ØRIVE
TP4 V.ØRIVE (B)
ØC-4 4P RED :S-MICRO
ØC-5 4P RED :S-MICRO
ØC-6 4P WHT :S-MICRO
ØC-7 4P WHT :S-MICRO
ØC-2 6P YEL :S-MICRO
V.ØY (R)
INV.SENS
V.ØY (G)
V.GNØ (B)
V.ØRIVE (B)
V.GNØ (G)
V.ØRIVE (G)
V.GNØ (R)
V.ØRIVE (R)
ØY (G)
TO ØM BOARØ ØM-6

Dc (V.OUT H/V SUB OUT)

B-SS1550<U/C>-ØC.

ØC-12 5P YEL :S-MICRO
SUB ØY (B)
H.SUB (B) V.SUB (B) V.SUB (B) H.SUB (B)

ØC-3 12P WHT :S-MICRO
H-SUB (R) H-SUB (G) H-SUB (B) V-SUB (R) V-SUB (G) V-SUB (B)
TO ØM BOARØ ØM-7

ØC-1 11P WHT :S-MICRO
+35V +15.5V +15.5V A.GNØ A.GNØ A.GNØ A.GNØ A.GNØ -15.5V -15.5V -35V
TO ØM BOARØ ØM-8

ØC-8 4P YEL :S-MICRO
V.ØY (B) INV.SENS INV.SENS V.ØY (B)

ØC-9 4P YEL :S-MICRO
V.ØY (B) V.ØY (B)

TO ØM BOARØ ØM-6

ØY (G)

TP1 GNØ
TP2 V.ØRIVE (R)
TP3 V.ØRIVE (G)
TP4 E (B)
TP7 V.SUB (G)
TP8 H.SUB (G)
TP9 V.SUB (B)
TP10 H.SUB (B)

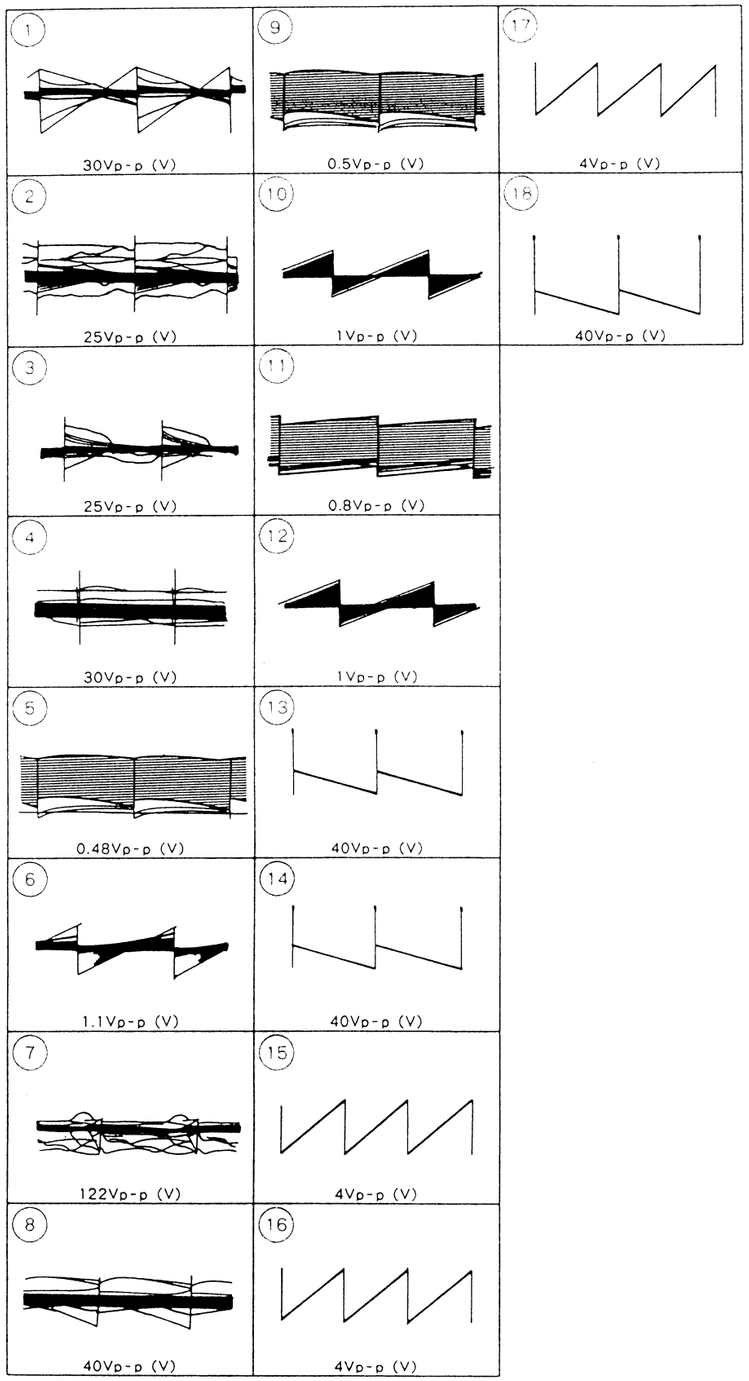
15V -15V 35V -35V 12V -12V

Ø102 ERC88-009 +P-VOLT-GATE
Ø103 ERC88-009 +P-VOLT GATE
Ø105 ERC88-009 -P.VOLT GATE
Ø106 ERC88-009 -P.VOLT GATE
Ø101 1SS119 CLAMP
Ø104 1SS119 CLAMP
Ø310 RØ3.3ESB2 BIAS
Ø309 RØ15ES-T1B2 LEVEL-SHIFT
Ø311 1SS119 B-H.BIAS
Ø312 1SS119 B-H.BIAS
Ø210 RØ3.3ESB2 BIAS
Ø209 RØ15ES-T1B2 LEVEL-SHIFT
Ø211 1SS119 B-V.BIAS
Ø212 1SS119 B-V.BIAS
Ø15 1SS119 ØISCHARGE
Ø16 1SS119 ØIS-CHARGE
Ø8 1SS119 GATE
Ø12 1SS119 GATE
Ø7 VØ6C PULSE CHARGE
Ø1 VØ6C +12V-REG-PROT
Ø2 VØ6C -12V-REG-PROT

Q105 2SJ14335.8 +35V-SW
Q103 2SC2785 BUFFER
Q104 2SA1175 BUFFER
Q102 2SK523 AØ/HØ-SW
Q101 2SC2785 AØ/HØ-BUFF
Q106 2SC2785 AØ/HØ-BUFF
Q107 2SA1175 AØ/HØ-BUFF
Q108 2SK817
Q309 2SA1358 B-H.SUB ACTIV-LOAØ
Q311 2SØ1977 B-H.SUB BUFF
Q312 2SB1315 B-H.SUB BUFF
Q310 2SC3421 B-H.SUB ØRIVE
Q209 2SA1358 B-V.SUB ACTIV-LOAØ
Q211 2SØ1977 B-V.SUB BUFF
Q212 2SB1315 B-V.SUB BUFF
Q210 2SC3421 B-V.SUB ØRIVE
Q9 2SA1358 +15V-CORRENT PROT
Q10 2SC3421 -15V-CORRENT PROT
Q4 ØTC144ES V-STOP-CONT SW
Q5 ØTC144ES V-STOP-CONT SW
Q3 2SC2785 V.PULSE ØET

IC102 #PC814C G-SUB.AMP
IC103 #PC814C B-SUB.AMP
IC303 LM6364N B-H.SUB PRE-ØRIVE
IC203 LM6364N B-V.SUB PRE-ØRIVE
IC8 #PCI498H B-V.OUT
IC7 #PC4558C B-V.AMP
IC1 LM7812CT +12V-REG
IC2 LM7912CT -12V-REG

DC BOARD



DC BOARD

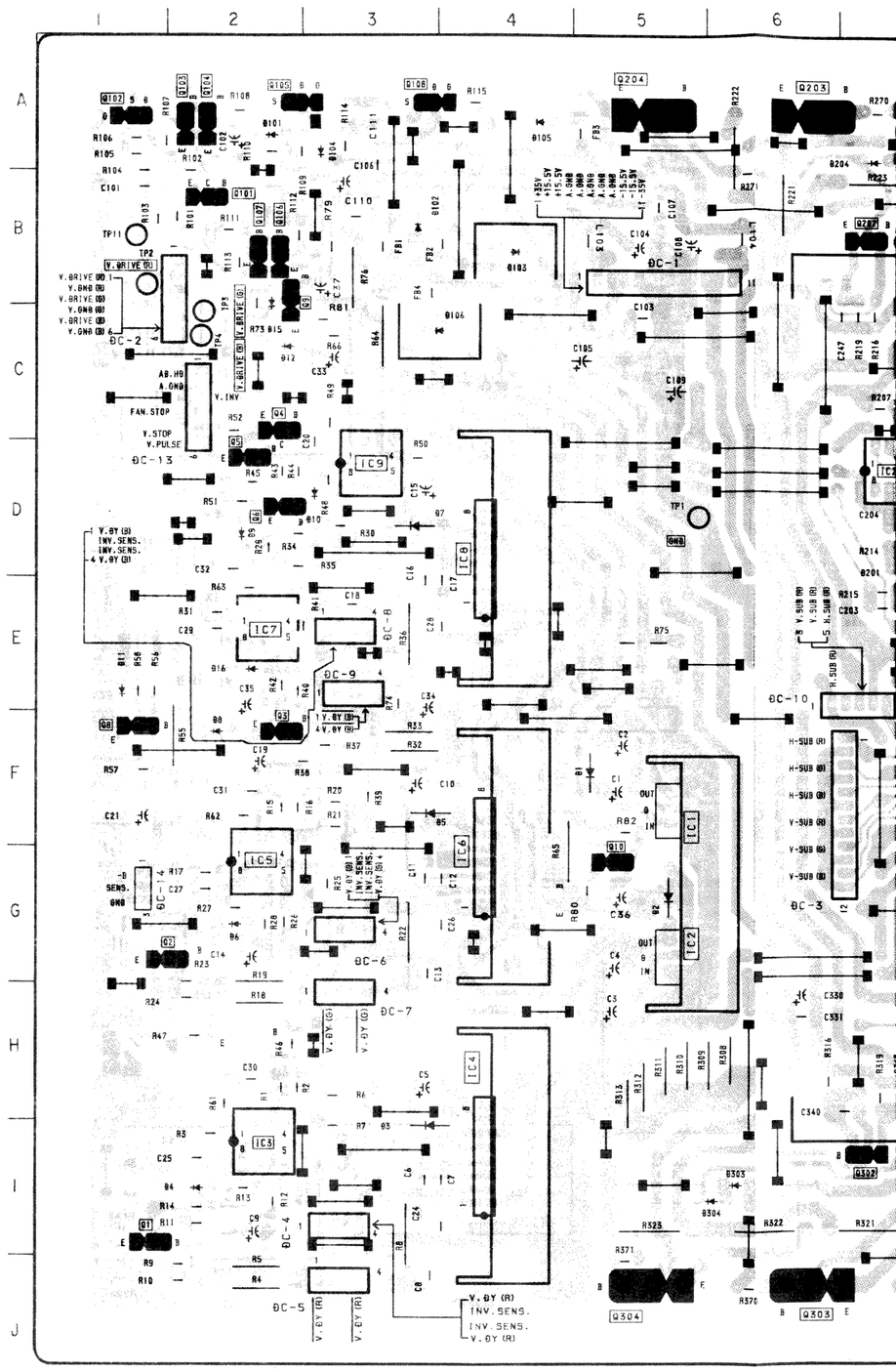
IC	
IC1	F-5
IC2	G-5
IC3	I-2
IC4	H-4
IC5	G-2
IC6	G-4
IC7	E-2
IC8	D-4
IC9	D-3
IC101	E-8
IC102	E-10
IC103	E-12
IC201	D-7
IC202	D-10
IC203	C-12
IC301	G-8
IC302	G-9
IC303	G-12

TRANSISTOR	
Q1	I-1
Q2	G-1
Q3	F-2
Q4	C-2
Q5	D-2
Q6	D-2
Q8	F-1
Q9	B-2
Q10	G-5
Q11	I-13
Q13	G-13
Q101	B-2
Q102	A-1
Q103	A-2
Q104	A-2
Q105	A-2
Q106	B-2
Q107	B-2
Q108	A-3
Q201	B-8
Q202	B-7
Q203	A-6
Q204	A-5
Q205	B-10
Q206	B-9
Q207	A-9
Q208	A-8
Q209	B-13
Q210	B-12
Q211	A-11
Q212	A-10
Q301	I-8
Q302	I-7
Q303	J-6
Q304	J-5
Q305	I-10
Q306	I-9
Q307	J-9
Q308	J-7
Q309	I-13
Q310	I-11
Q311	J-11
Q312	J-10

DIODE	
D1	F-5
D2	G-5
D3	I-2
D4	I-2
D5	F-3
D6	G-2
D7	D-3
D8	F-2
D9	D-2
D10	D-3
D11	E-1
D12	C-2
D13	I-13
D15	C-2
D16	E-2
D101	A-2
D102	B-3
D103	B-4
D104	A-3
D105	A-4
D106	C-4
D201	D-7
D202	C-8
D203	A-7
D204	A-7
D205	B-10
D206	C-11
D207	A-9
D208	A-9
D209	B-12
D210	C-13
D211	B-11
D212	B-11
D301	H-8
D302	H-8
D303	I-6
D304	I-6
D305	H-9
D306	H-10
D307	I-9
D308	I-8
D309	H-12
D310	H-13
D311	I-11
D312	I-10

DC [V. OUT, H/V SUB OUT]

– DC BOARD –

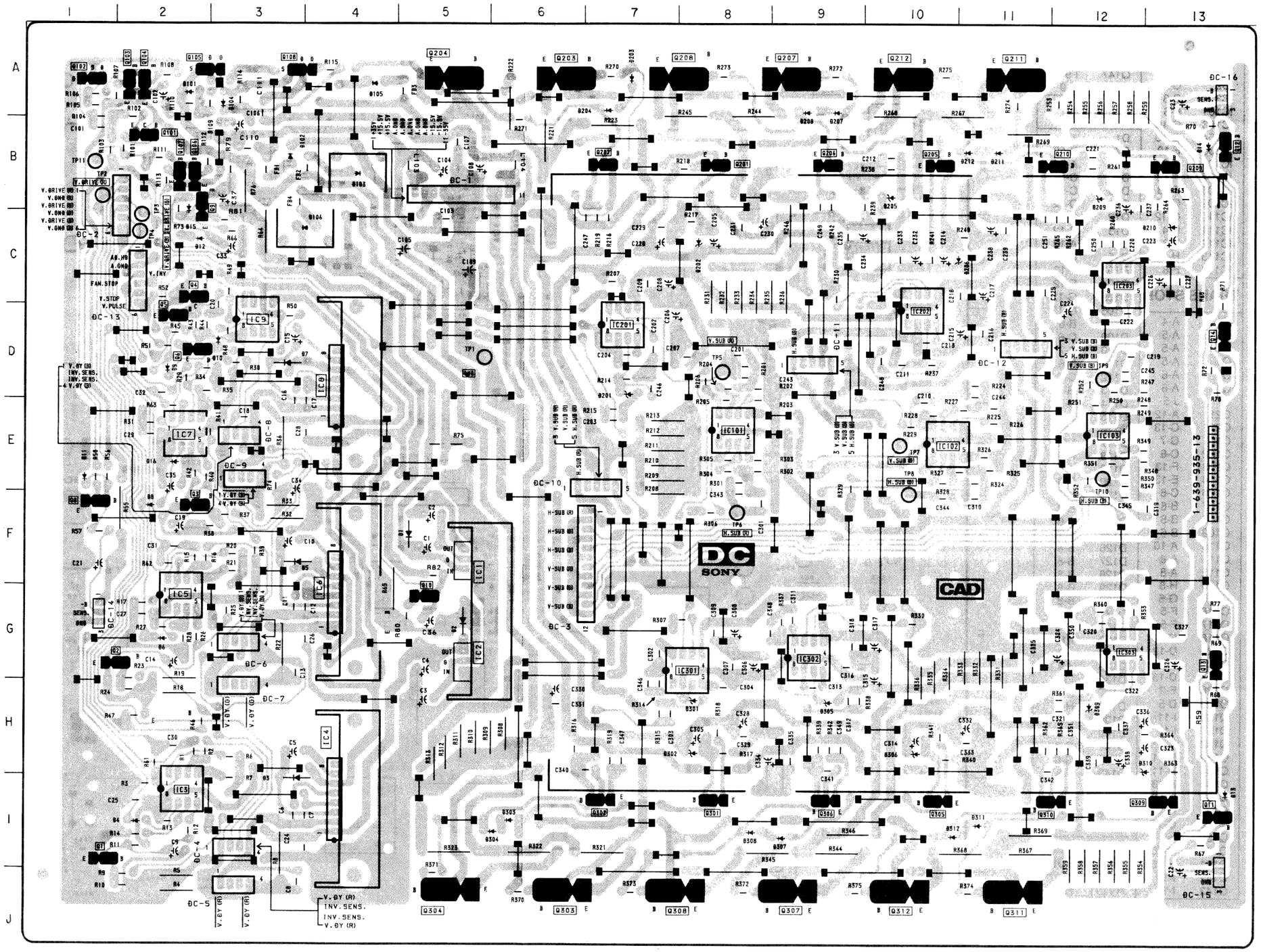


VPH-1272QM/Q
RM-1271

DC

[V. OUT, H/V SUB OUT]

– DC BOARD –



DC BOARD

IC	
IC1	F-5
IC2	G-5
IC3	I-2
IC4	H-4
IC5	G-2
IC6	G-4
IC7	E-2
IC8	D-4
IC9	D-3
IC101	E-8
IC102	E-10
IC103	E-12
IC201	D-7
IC202	D-10
IC203	C-12
IC301	G-8
IC302	G-9
IC303	G-12

TRANSISTOR	
Q1	I-1
Q2	G-1
Q3	F-2
Q4	C-2
Q5	D-2
Q6	D-2
Q8	F-1
Q9	B-2
Q10	G-5
Q11	I-13
Q13	G-13
Q101	B-2
Q102	A-1
Q103	A-2
Q104	A-2
Q105	A-2
Q106	B-2
Q107	B-2
Q108	A-3
Q201	B-8
Q202	B-7
Q203	A-6
Q204	A-5
Q205	B-10
Q206	B-9
Q207	A-9
Q208	A-8
Q209	B-13
Q210	B-12
Q211	A-11
Q212	A-10
Q301	I-8
Q302	I-7
Q303	J-6
Q304	J-5
Q305	I-10
Q306	I-9
Q307	J-9
Q308	J-7
Q309	I-13
Q310	I-11
Q311	J-11
Q312	J-10

DIODE	
D1	F-5
D2	G-5
D3	I-2
D4	I-2
D5	F-3
D6	G-2
D7	D-3
D8	F-2
D9	D-2
D10	D-3
D11	E-1
D12	C-2
D13	I-13
D15	C-2
D16	E-2
D101	A-2
D102	B-3
D103	B-4
D104	A-3
D105	A-4
D106	C-4
D201	D-7
D202	C-8
D203	A-7
D204	A-7
D205	B-10
D206	C-11
D207	A-9
D208	A-9
D209	B-12
D210	C-13
D211	B-11
D212	B-11
D301	H-8
D302	H-8
D303	I-6
D304	I-6
D305	H-9
D306	H-10
D307	I-9
D308	I-8
D309	H-12
D310	H-13
D311	I-11
D312	I-10

VPH-1272QM/Q
RM-1271

E [H OUT]

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

– E BOARD –

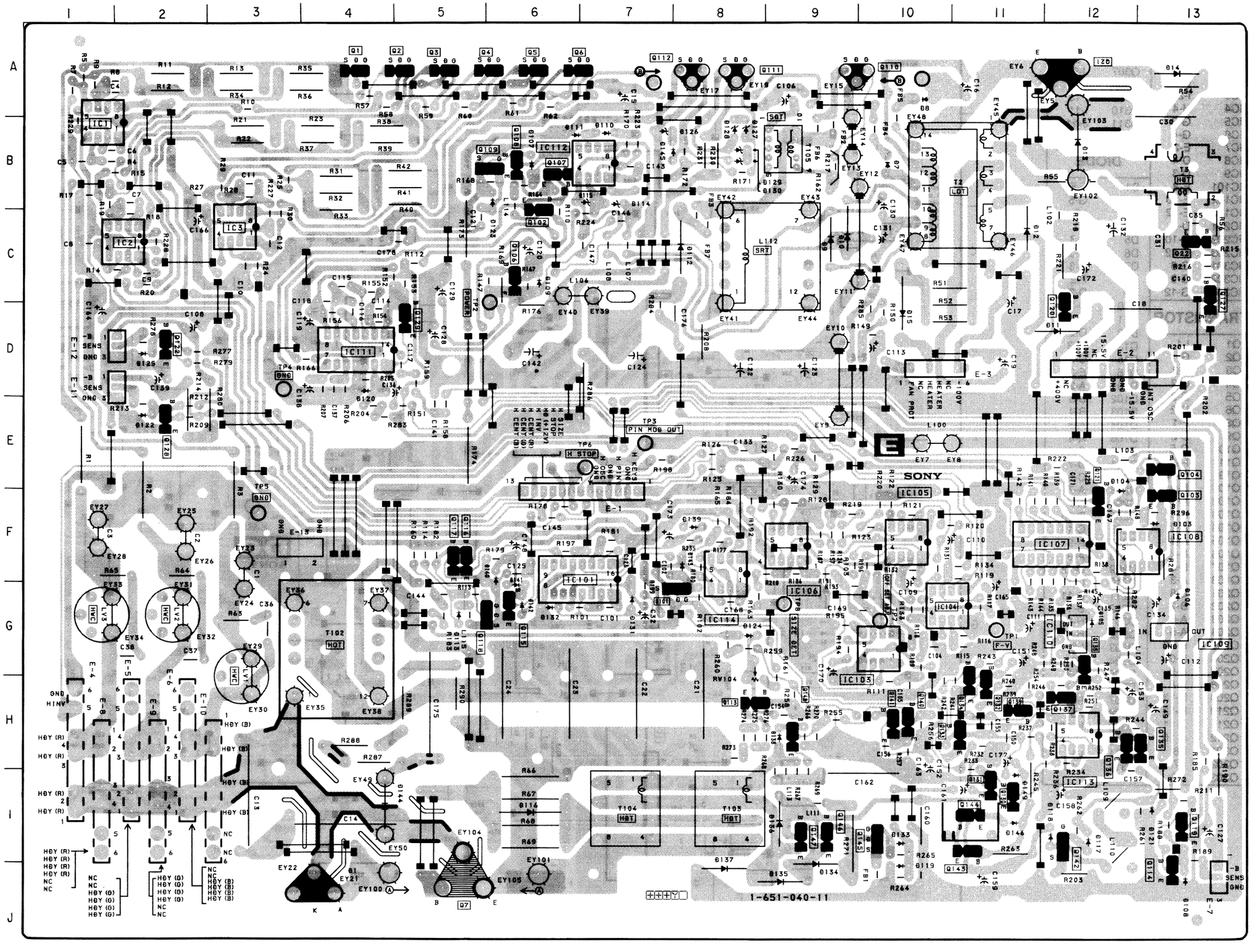
E BOARD

IC	
IC1	B-1
IC2	C-2
IC3	C-3
IC101	F-6
IC103	G-10
IC104	G-10
IC105	F-10
IC106	G-9
IC107	F-12
IC108	F-13
IC109	G-13
IC110	G-12
IC111	D-4
IC112	B-6
IC113	H-12
IC114	F-8

TRANSISTOR	
Q1	A-4
Q2	A-5
Q3	A-5
Q4	A-5
Q5	A-6
Q6	A-6
Q7	J-5
Q21	A-12
Q22	C-13
Q101	G-7
Q102	C-6
Q103	F-13
Q104	E-13
Q106	C-6
Q107	B-6
Q108	B-6
Q109	B-6
Q110	A-10
Q111	A-8
Q112	A-8
Q113	H-8
Q115	G-6
Q116	F-5
Q117	F-5
Q118	G-5
Q120	D-12
Q121	F-12
Q127	D-13
Q128	E-2
Q129	D-5
Q130	I-11
Q131	I-11
Q132	H-11
Q133	H-11
Q134	H-11
Q135	H-13
Q136	H-12
Q137	H-12
Q138	G-12
Q139	H-11
Q140	H-10
Q141	H-10
Q142	I-12
Q143	I-11
Q144	I-11
Q145	I-10
Q146	I-9
Q147	I-9
Q148	H-9

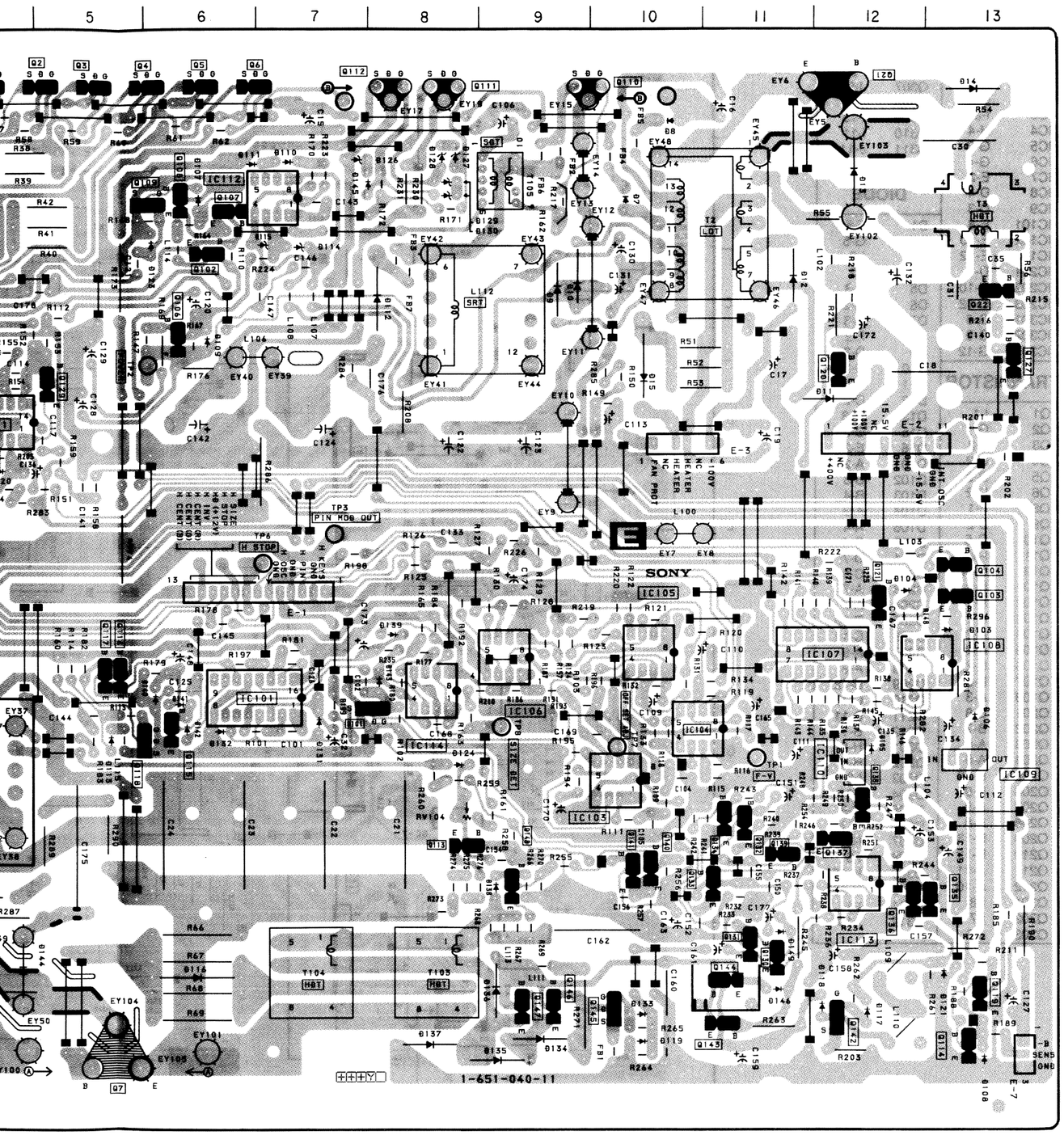
DIODE	
D1	J-4
D7	B-10
D8	A-10
D9	C-9
D10	C-9
D11	D-12
D12	C-11
D13	B-12
D14	A-13
D15	D-10
D103	F-13
D104	F-12
D105	G-12
D106	G-13
D107	B-6
D109	C-6
D110	B-7
D111	B-6
D112	C-8
D113	G-5
D114	B-7
D115	B-7
D116	I-6
D117	I-12
D118	I-12
D119	J-10
D120	D-4
D121	I-13
D122	E-2
D123	B-6
D124	G-8
D126	B-8
D127	B-8
D128	B-8
D129	B-8
D130	B-8
D131	G-7
D132	G-6
D133	I-10
D134	J-9
D135	J-9
D136	I-9
D137	J-8
D138	H-9
D139	F-8
D140	F-6
D141	G-6
D142	G-6
D143	F-8
D144	I-4
D145	B-7
D146	I-11
D149	I-11

VARIABLE RESISTOR	
RV101	H-8


1-651-040-11
SONY
IC101
IC103
IC104
IC105
IC106
IC107
IC108
IC109
IC110
IC111
IC112
IC113
IC114
T101 HOT
T102 HOT
T103 HOT
T104 HOT
T105 HOT
T2 LOT
T3 HRT
SIZE SET
SIZE ADJ
PIN MOD OUT
H STOP
H PIN DIST
H PIN MOD
H CENT (G)
H CENT (B)
H SIZE
H CENT (R)
H PIN GND
H CENT (GND)
H SIZE GND
H STOP GND
H PIN DIST GND
H PIN MOD GND
H CENT (GND)
H CENT (B)
H CENT (G)
H CENT (R)
H SIZE
H STOP
H PIN DIST
H PIN MOD

VPH-1272QM/Q
RM-1271

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

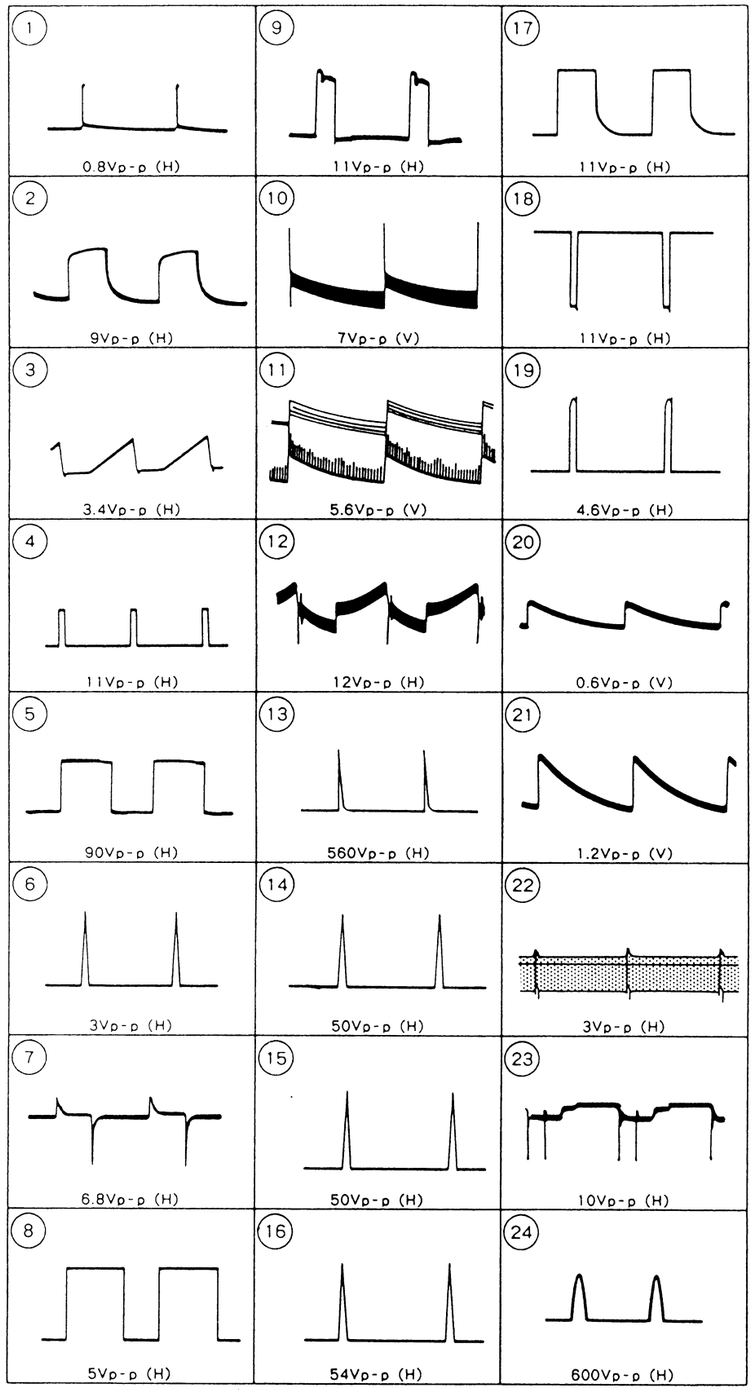


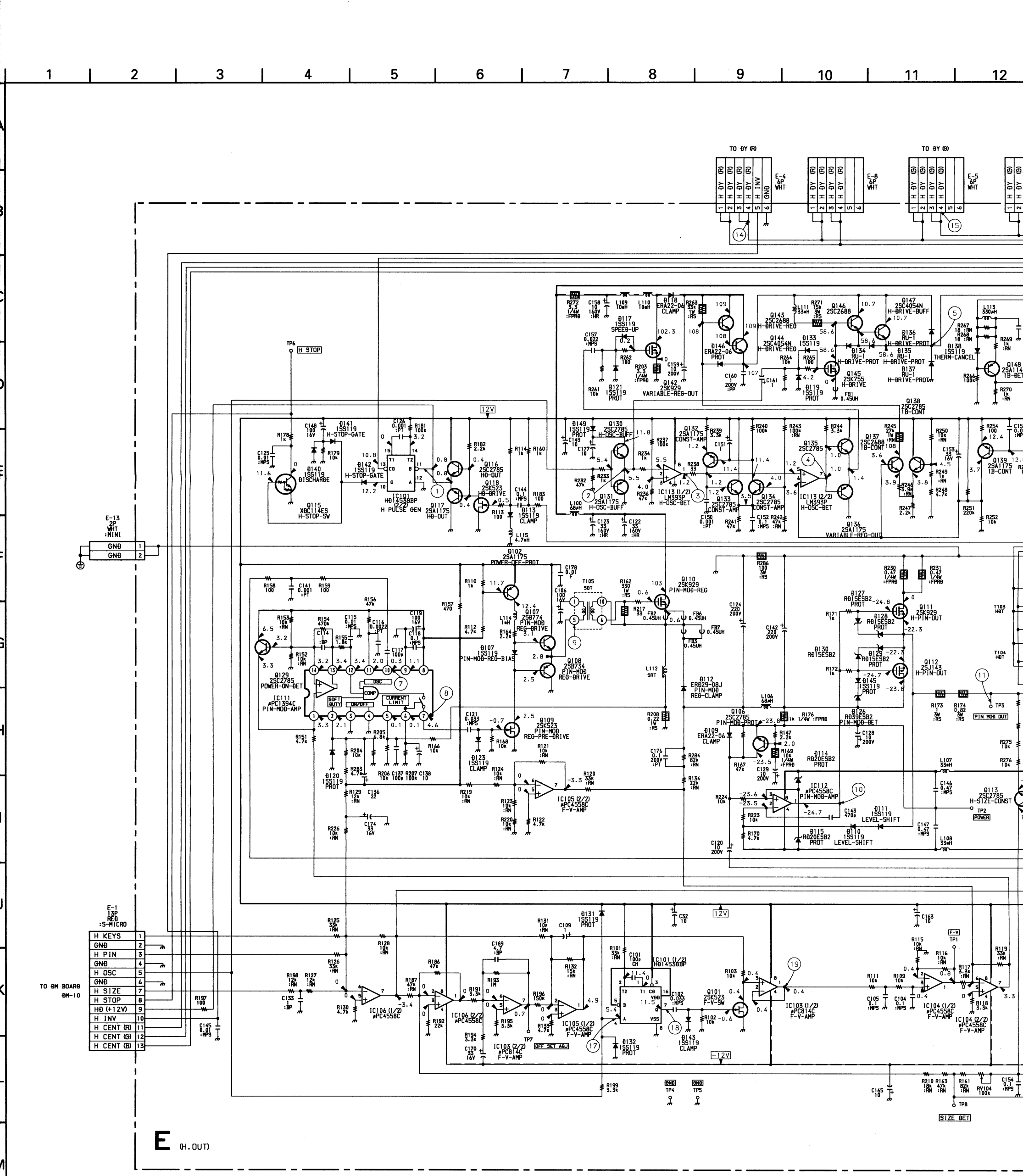
E BOARD

REF.	Pin. No.	PAL
IC301	⑦	1.3
IC501	①	4.9
IC112	①	-24.7
	②	-23.5
	③	-23.5
IC114	②	4.7
	⑤	4.7

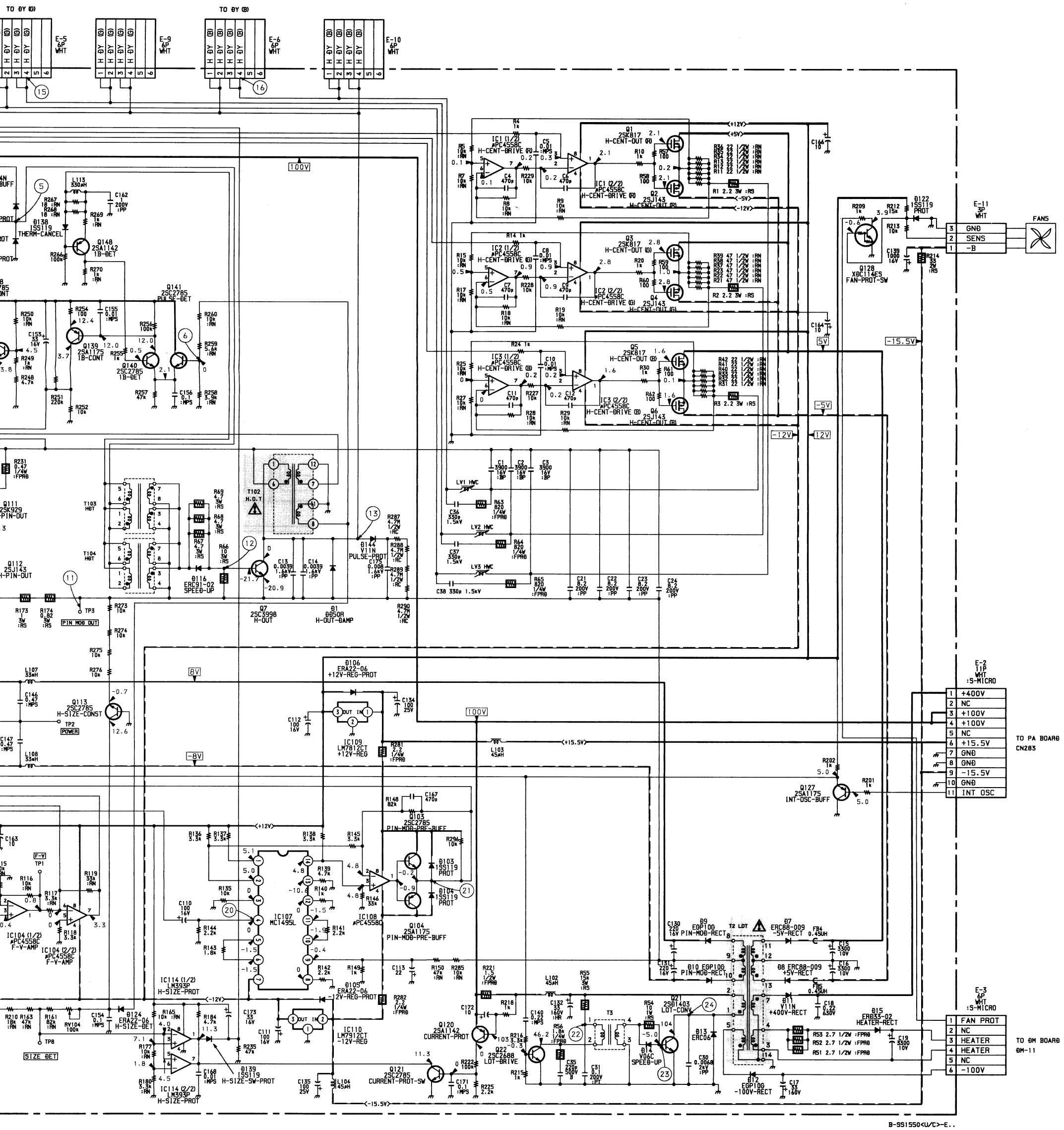
REF.		WHITE
Q007	B	-21.6
	C	-0.3
	E	-20.8
Q106	B	-23.6
	C	-23.6
	E	-23.5
Q107	B	3.0
	C	–
	E	2.8
Q108	B	2.5
	C	–
	E	2.8
Q113	B	–
	C	12.7
	E	–
Q137	B	3.8
	C	106.3
	E	3
Q138	B	11.9
	C	3.5
	E	–
Q140	B	11.9
	C	3.5
	E	–
Q143	B	–
	C	11.9
	E	–
Q144	B	112
	C	112.5
	E	111.5
Q146	B	111.4
	C	112.5
	E	110.7
Q147	B	63.5
	C	110.3
	E	63.5
Q148	B	62.5
	C	0.4
	E	60.4

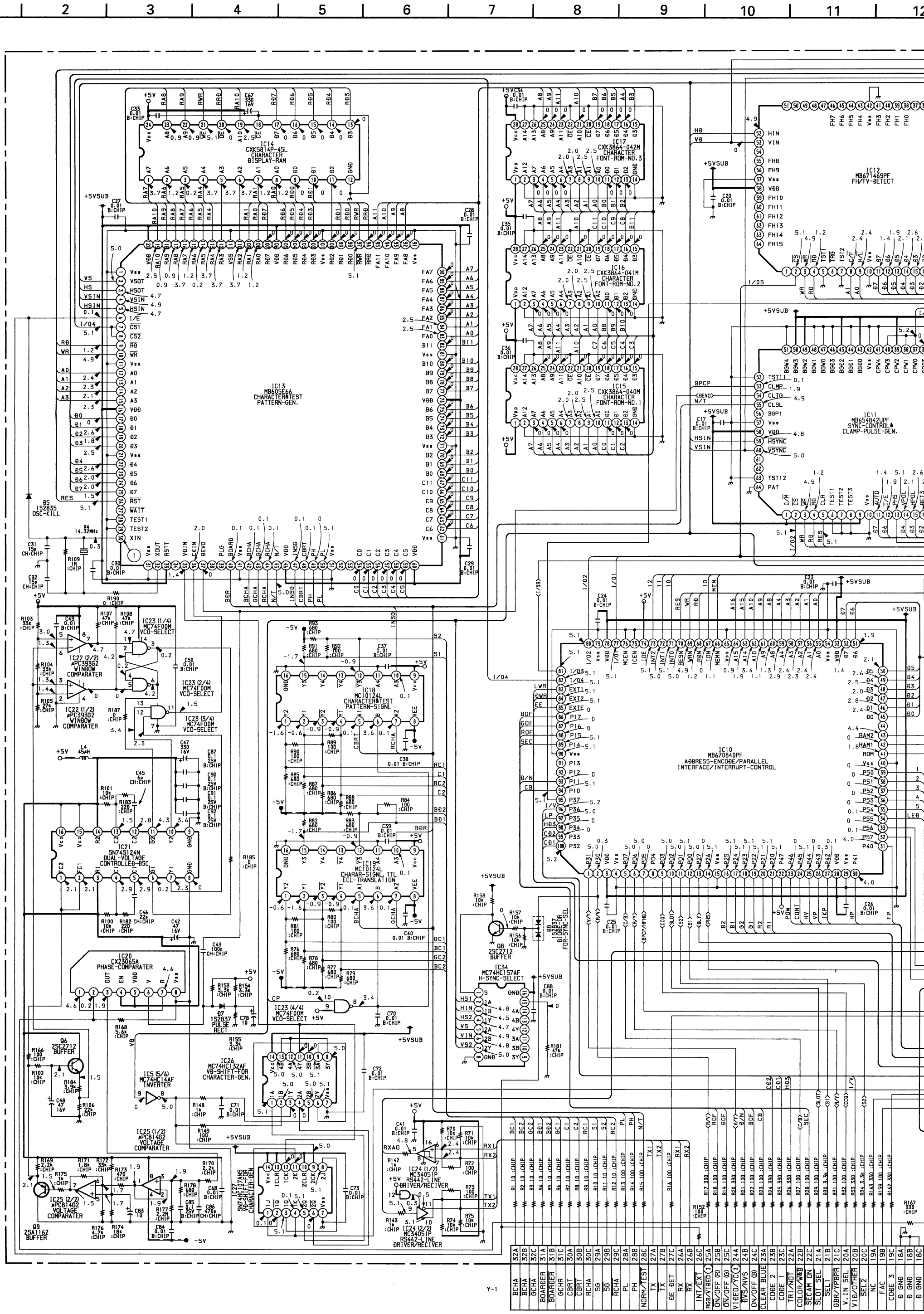
E BOARD

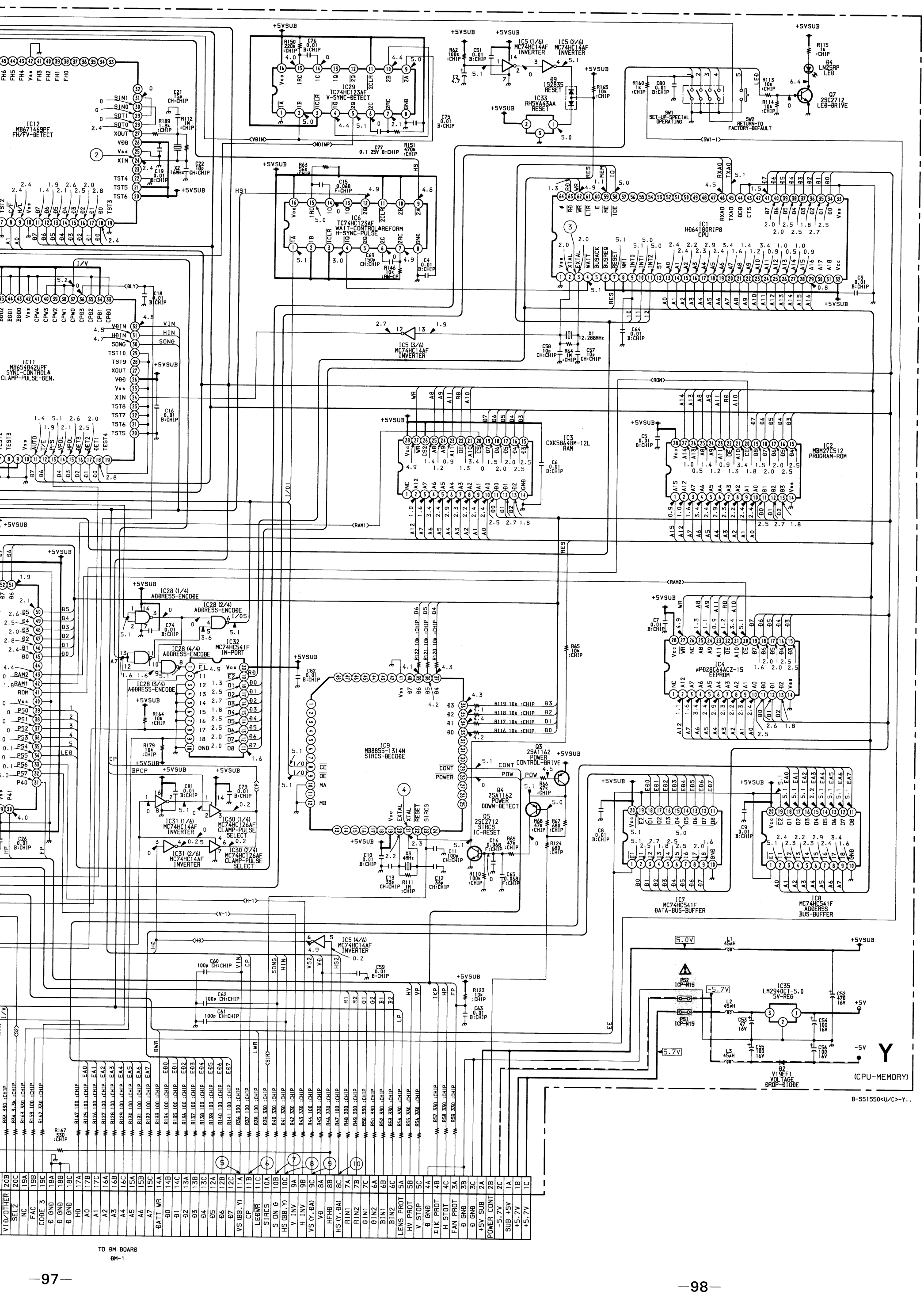



TO ΘY (R)
TO ΘY (G)
E-4 6P WHT
E-8 6P WHT
E-5 6P WHT
H ΘY (R)
H ΘY (G)
H INV
GNΘ
TP6
H STOP
12V
Q141 1SS119 H-STOP-GATE
Q140 1SS119 ΘISCHARGE
Q115 XΘC114ES H-STOP-SW
Q142 1SS119 H-STOP-GATE
IC101 HΘ14538BP (2/2) H PULSE GEN
Q117 2SA1175 HΘ-OUT
Q116 2SC2785 HΘ-OUT
Q118 2SK523 HΘ-DRIVE
Q113 2SA1175 CLAMP
Q102 2SA1175 POWER-OFF-PROT
Q129 2SC2785 POWER-ON-DET
IC111 μPC1394C PIN-MΘΘ-AMP
OSC
COMP
SOFT ΘUTY
ON/OFF
CURRENT LIMIT
Q107 2SΘ774 PIN-MΘΘ REG-ΘRIVE
Q107 1SS119 PIN-MΘΘ-REG-BIAS
Q108 2SΒ734 PIN-MΘΘ REG-ΘRIVE
T105 SΘT
SRT
Q110 2SK929 PIN-MΘΘ-REG
Q112 ERΘ29-Θ8J PIN-MΘΘ REG-CLAMP
Q109 2SK523 PIN-MΘΘ REG-PRE-ΘRIVE
Q120 1SS119 PROT
Q123 1SS119 CLAMP
IC105 (2/2) μPC4558C F-V-AMP
Q104 2SC2785 PIN-MΘΘ-PROT
Q109 ERA22-06 CLAMP
Q114 RΘ20ESB2 PROT
IC112 μPC4558C PIN-MΘΘ-AMP
Q111 1SS119 LEVEL-SHIFT
Q115 RΘ20ESB2 PROT
Q110 1SS119 LEVEL-SHIFT
Q127 RΘ15ESB2 PROT
Q111 2SK929 H-PIN-OUT
Q130 RΘ15ESB2
Q129 RΘ15ESB2 PROT
Q112 2SJ143 H-PIN-OUT
Q145 1SS119 PROT
Q126 RΘ39ESB2 PIN-MΘΘ-ΘET
PIN MΘΘ OUT
TP3
TP2
POWER
Q113 2SC2785 H-SIZE-CONST
Q118 ERA22-06 CLAMP
Q117 1SS119 SPEEΘ-UP
Q142 2SK929 VARIABLE-REG-OUT
Q121 1SS119 PROT
Q143 2SC2688 H-ΘRIVE-REG
Q144 2SC4054N H-ΘRIVE-REG
Q146 ERA22-06 PROT
Q119 1SS119 PROT
Q145 2SK755 H-ΘRIVE
Q134 RU-1 H-ΘRIVE-PROT
Q147 2SC4054N H-ΘRIVE-ΘUFF
Q136 RU-1 H-ΘRIVE-PROT
Q135 RU-1 H-ΘRIVE-PROT
Q137 RU-1 H-ΘRIVE-PROT
Q138 1SS119 THERM-CANCEL
Q148 2SA1141 1Θ-ΘET
Q149 1SS119 PROT
Q130 2SC2785 H-OSC-ΘUFF
Q131 2SA1175 H-OSC-ΘUFF
Q132 2SA1175 CONST-AMP
IC113 (1/2) LM393P H-OSC-ΘET
Q133 2SC2785 CONST-AMP
Q134 2SC2785 CONST-AMP
Q135 2SC2785
IC113 (2/2) LM393P H-OSC-ΘET
Q136 2SA1175 VARIABLE-REG-OUT
Q138 2SC2785 1Θ-CONT
Q137 2SC2688 1Θ-CONT
Q139 2SA1175 1Θ-CONT
Q101 2SK523 F-V-SW
IC101 (1/2) HΘ14538ΒP
IC106 (1/2) μPC4558C
IC106 (2/2) μPC4558C
IC103 (2/2) μPC814C F-V-AMP
IC105 (1/2) μPC4558C F-V-AMP
IC103 (1/2) μPC814C F-V-AMP
IC104 (1/2) μPC4558C F-V-AMP
IC104 (2/2) μPC4558C F-V-AMP
Q143 1SS119 CLAMP
Q132 1SS119 PROT
Q131 1SS119 PROT
TP7
OFF SET ΑΘJ
TP1
F-V
TP8
SIZE ΘET
TP4
TP5
GNΘ
-12V
E-13 2P WHT :MINI
GNΘ 1
GNΘ 2
E-1 13P REΘ :S-MICRO
H KEYS 1
GNΘ 2
H PIN 3
GNΘ 4
H OSC 5
GNΘ 6
H SIZE 7
H STOP 8
HΘ (+12V) 9
H INV 10
H CENT (R) 11
H CENT (G) 12
H CENT (Β) 13
TO ΘM BOARΘ ΘM-10

E (H.OUT)


TO BY (G)
TO BY (B)
E-5 6P WHT
E-9 6P WHT
E-6 6P WHT
E-10 6P WHT
100V
+12V
+5V
-5V
-12V
-15.5V
8V
-8V
IC1 (1/2) μPC4558C H-CENT-DRIVE (R)
IC1 (2/2) μPC4558C H-CENT-DRIVE (R)
IC2 (1/2) μPC4558C H-CENT-DRIVE (G)
IC2 (2/2) μPC4558C H-CENT-DRIVE (G)
IC3 (1/2) μPC4558C H-CENT-DRIVE (B)
IC3 (2/2) μPC4558C H-CENT-DRIVE (B)
Q1 2SK817 H-CENT-OUT (R)
Q2 2SJ143 H-CENT-OUT (R)
Q3 2SK817 H-CENT-OUT (G)
Q4 2SJ143 H-CENT-OUT (G)
Q5 2SK817 H-CENT-OUT (B)
Q6 2SJ143 H-CENT-OUT (B)
D122 1SS119 PROT
Q128 X9C114ES FAN-PROT-SW
E-11 3P WHT
FAN5
GND
SENS
-B
L113 330μH
Q138 1SS119 THERM-CANCEL
Q148 2SA1142 1B-DET
Q141 2SC2785 PULSE-DET
Q139 2SA1175 1B-CONT
Q140 2SC2785 1B-DET
Q111 2SK929 H-PIN-OUT
Q112 2SJ143 H-PIN-OUT
T102 H.O.T
T103 HOT
T104 HOT
D116 ERC91-02 SPEED-UP
Q7 2SC3998 H-OUT
D1 D050R H-OUT-DAMP
D144 V11N PULSE-PROT
TP3
PIN MOD OUT
Q113 2SC2785 H-SIZE-CONST
TP2
POWER
D106 ERA22-06 +12V-REG-PROT
IC109 LM7812CT +12V-REG
IC107 MC1495L
IC108 μPC4558C
Q104 2SA1175 PIN-MOD-PRE-BUFF
Q103 2SC2785 PIN-MOD-PRE-BUFF
D103 1SS119 PROT
D104 1SS119 PROT
D105 ERA22-06 -12V-REG-PROT
IC104 (1/2) μPC4558C F-V-AMP
IC104 (2/2) μPC4558C F-V-AMP
TP1
F-V
IC114 (1/2) LM393P H-SIZE-PROT
IC114 (2/2) LM393P H-SIZE-PROT
D124 ERA22-06 H-SIZE-DET
TP8
SIZE DET
D139 1SS119 H-SIZE-SW-PROT
IC110 LM7912CT -12V-REG
Q120 2SA1142 CURRENT-PROT
Q121 2SC2785 CURRENT-PROT-SW
Q22 2SC2688 LOT-DRIVE
Q21 2SB1403 LOT-CONV
T3
D14 V06C SPEED-UP
D13 ERC06
D12 EGP10G -100V-RECT
D11 V11N +400V-RECT
D15 ER033-02 HEATER-RECT
D10 EGP10G PIN-MOD-RECT
D9 EGP10G PIN-MOD-RECT
D8 ERC88-009 +5V-RECT
D7 ERC88-009 -5V-RECT
T2 LOT
Q127 2SA1175 INT-OSC-BUFF
E-2 11P WHT :S-MICRO
+400V
NC
+100V
+100V
NC
+15.5V
GND
GND
-15.5V
GND
INT OSC
TO PA BOARD CN283
E-3 6P WHT :S-MICRO
FAN PROT
NC
HEATER
HEATER
NC
-100V
TO DM BOARD DM-11
LV1 HVC
LV2 HVC
LV3 HVC
C38 330p 1.5kV
B-SS1550<U/C>-E..


IC14
CXK5814P-45L
CHARACTER
DISPLAY-RAM
IC13
MB605E66
CHARACTER&TEST
PATTERN-GEN.
IC17
CXK3864-042M
CHARACTER
FONT-ROM-NO.3
IC16
CXK3864-041M
CHARACTER
FONT-ROM-NO.2
IC15
CXK3864-040M
CHARACTER
FONT-ROM-NO.1
IC12
MB671469PF
FH/FV-DETECT
IC11
MB654842UPF
SYNC-CONTROL&
CLAMP-PULSE-GEN.
IC10
MB670840PF
ADDRESS-ENCODE/PARALLEL
INTERFACE/INTERRUPT-CONTROL
IC18
MC10124L
CHARACTER&TEST
PATTERN-SIGNL
IC19
MC10124L
CHARAR-SIGNL TTL
ECL-TRANSLATION
IC21
SN74S124N
DUAL-VOLTAGE
CONTROLLED-OSC
IC20
CX23065A
PHASE-COMPARATOR
IC22 (2/2)
μPC393G2
WINDOW
COMPARATOR
IC22 (1/2)
μPC393G2
WINDOW
COMPARATOR
IC23 (1/4)
MC74F00M
VCO-SELECT
IC23 (2/4)
MC74F00M
VCO-SELECT
IC23 (3/4)
MC74F00M
VCO-SELECT
IC23 (4/4)
MC74F00M
VCO-SELECT
IC25 (1/2)
μPC814G2
VOLTAGE
COMPARATOR
IC25 (2/2)
μPC814G2
VOLTAGE
COMPARATOR
IC26
MC74HC132AF
VB-SHIFT-FOR
CHARACTER-GEN.
IC27
SN74HC107ANS
VB-SHIFT-FOR
CHARACTER-GEN
IC5 (5/6)
MC74HC14AF
INVERTER
IC34
MC74HC157AF
H-SYNC-SELECT
IC24 (1/2)
MC34051P
RS442-LINE
DRIVER/RECIVER
IC24 (2/2)
MC34051P
RS442-LINE
DRIVER/RECIVER
Q5
2SA1162
OSC-KILL
Q6
2SC2712
BUFFER
Q7
2SC2712
BUFFER
Q8
2SC2712
BUFFER
Q9
2SA1162
BUFFER
D5
1S2837
PULSE
RECT
D8
1S2837
BLANK-FOR
SYNC-SEL
+5V
+5VSUB
-5V
X4
14.32MHz
BCHA
BCHA
GCHA
BOARDER
BOARDER
GCHR
CBRT
CBRT
RCHA
SG
SG
RCHA
PL
PH
NORM/TEST
TX
TX
DE DET
RX
RX
INT/EXT
RGB/VIDEO (2)
ON/OFF (R)
ON/OFF (G)
VIDEO/YC (2)
BVS/NVS
ON/OFF (B)
CLEAR BLUE
CODE 2
CODE 1
TRI/NOT
COLOR/MAS
SECAM ON
SLOT SEL
SEL1
GBR/YPBPR
V.IN SEL
VIB/OTHER
SEL2
NC
FAC
CODE 3
Y-1


IC12 MB671469PF FH/FV-DETECT
IC11 MB654842UPF SYNC-CONTROL& CLAMP-PULSE-GEN.
IC29 TC74HC123AF V-SYNC-DETECT
IC6 TC74HC123AF WAIT-CONTROL&REFORM H-SYNC-PULSE
IC5 (1/6) MC74HC14AF INVERTER
IC5 (2/6) MC74HC14AF INVERTER
IC5 (3/6) MC74HC14AF INVERTER
IC5 (4/6) MC74HC14AF INVERTER
IC33 RH5VA43AA RESET
D9 1S2835 RESET
SW1 SET-UP-SPECIAL OPERATING
SW2 RETURN-TO FACTORY-DEFAULT
D4 LN25RP LED
Q7 2SC2712 LED-DRIVE
IC1 HD64180RIP8 CPU
X1 12.288MHz
X2 16MHz
X3 4MHz
IC3 CXK5864BM-12L RAM
IC2 MBM27C512 PROGRAM-ROM
IC4 #PD28C64ACZ-15 EEPROM
IC9 MB8855-1314N SIRCS-DECODE
IC28 (1/4) ADDRESS-ENCODE
IC28 (2/4) ADDRESS-ENCODE
IC28 (3/4) ADDRESS-ENCODE
IC28 (4/4) ADDRESS-ENCODE
IC32 MC74HC541F IN-PORT
IC31 (1/6) MC74HC14AF INVERTER
IC31 (2/6) MC74HC14AF INVERTER
IC30 (1/4) MC74HC126AF CLAMP-PULSE SELECT
IC30 (2/4) MC74HC126AF CLAMP-PULSE SELECT
IC7 MC74HC541F DATA-BUS-BUFFER
IC8 MC74HC541F ADDERSS BUS-BUFFER
Q3 2SA1162 POWER CONTROL-DRIVE
Q4 2SA1162 POWER DOWN-DETECT
Q5 2SC2712 SIRCS IC-RESET
IC35 LM2940CT-5.0 5V-REG
PS2 ICP-N15
PS1 ICP-N15
D2 V19EF1 VOLTAGE DROP-DIODE
+5VSUB
-5.7V
5.0V
+5V
-5V
RES
CONT POWER
(CPU-MEMORY)
TO DM BOARD DM-1
B-SS1550<U/C>-Y..

Y [CPU MEMORY]

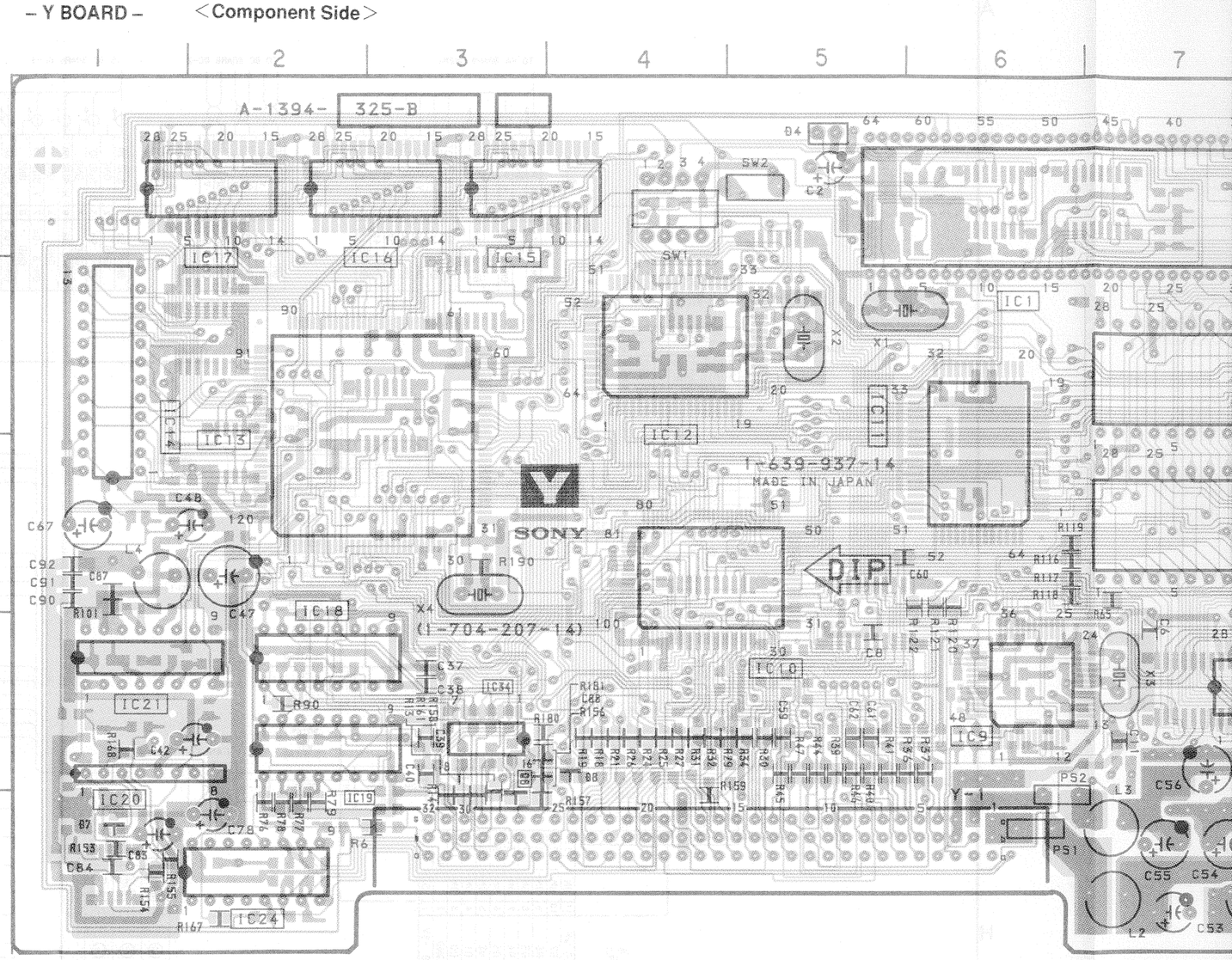
Y BOARD

① 4.3Vp-p 14.098MHz Note :INPUT SELECT buttor ON	⑥ 4.4Vp-p (H)
② 6Vp-p 16MHz	⑦ 4.4Vp-p (H)
③ 2.8Vp-p 12.288MHz	⑧ 4.4Vp-p (H)
④ 4.8Vp-p 4MHz	⑨ 5Vp-p (V)
⑤ 4.8Vp-p (V)	⑩ 4.4Vp-p (H)

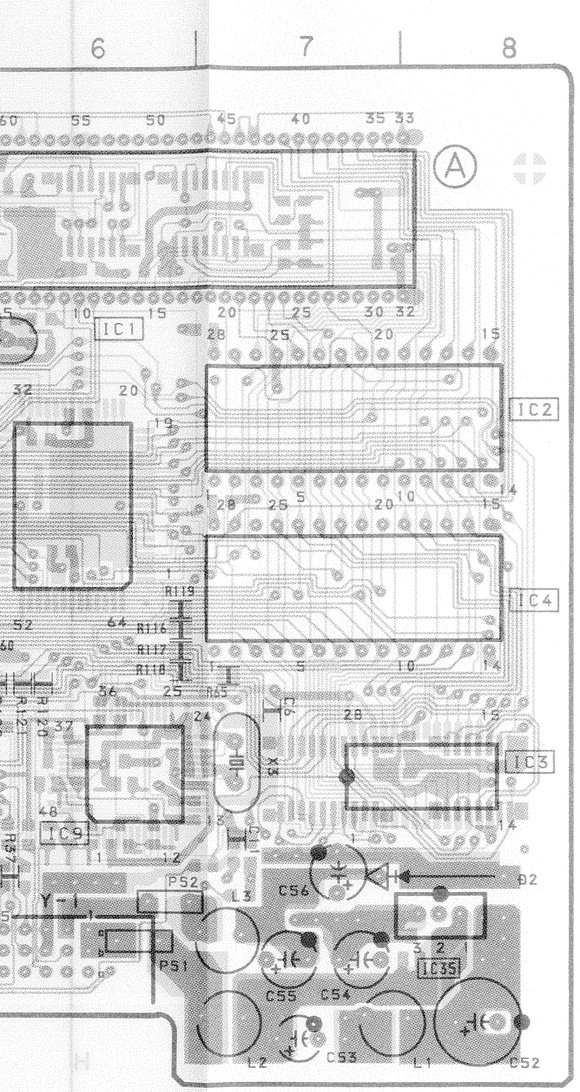
Y BOARD (COMPONENT SIDE)

IC	
IC1	A-6
IC2	B-7
IC3	D-8
IC4	C-8
IC9	D-6
IC10	C-4
IC11	C-6
IC12	B-4
IC13	C-2
IC14	B-1
IC15	A-3
IC16	A-2
IC17	A-2
IC18	D-2
IC19	D-2
IC20	D-1
IC21	D-1
IC24	E-2
IC34	D-3
IC35	E-8
TRANSISTOR	
Q8	D-3
DIODE	
D2	D-8
D4	A-5
D7	E-1
D8	D-4

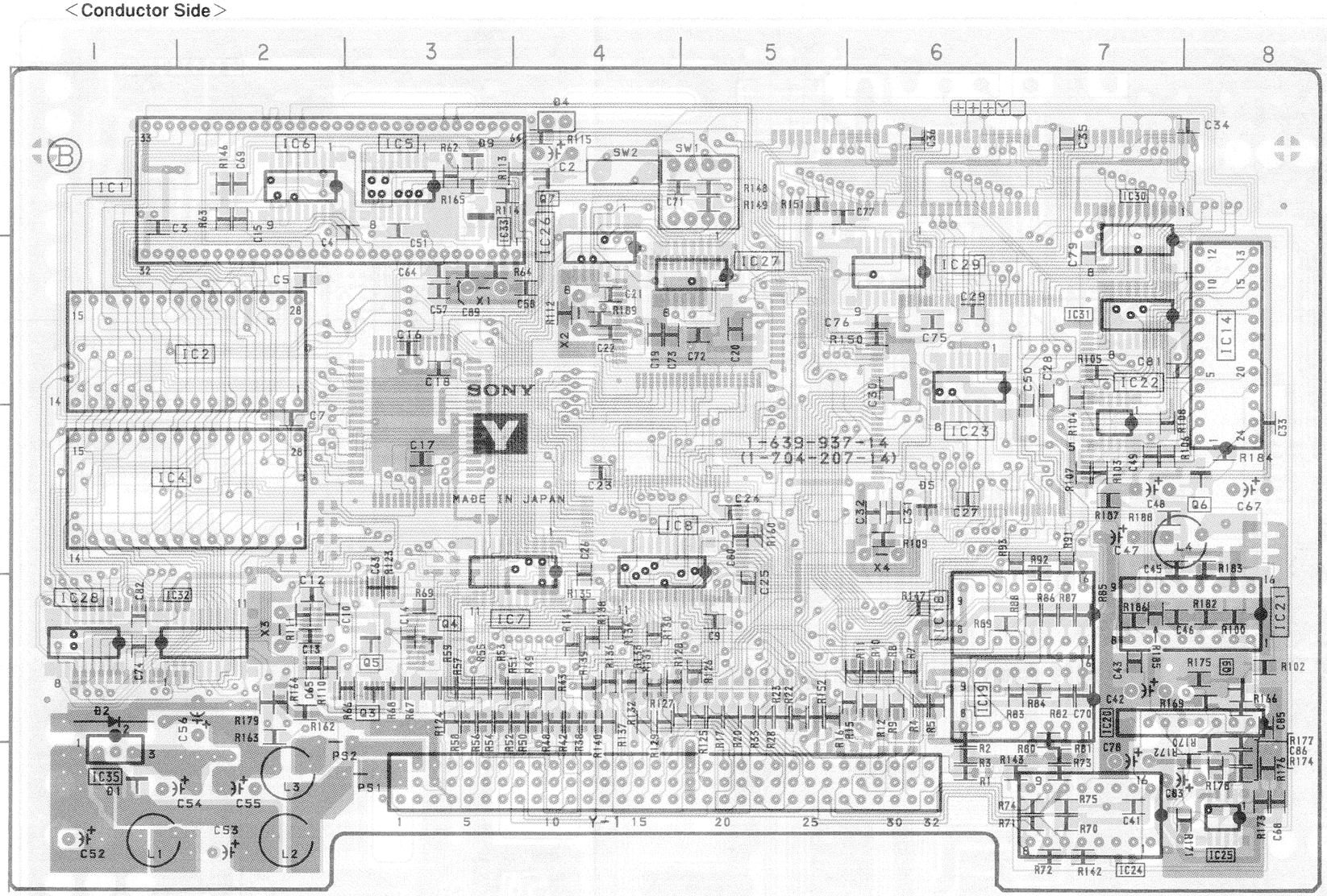
– Y BOARD – <Component Side>



Y BOARD (CONDUCTOR SIDE)



＜Conductor Side＞



IC	
IC1	A-2
IC2	B-2
IC4	C-2
IC5	A-3
IC6	A-2
IC7	D-3
IC8	C-4
IC14	B-8
IC18	D-6
IC19	D-6
IC20	D-7
IC21	D-8
IC22	C-7
IC23	B-6
IC24	E-7
IC25	E-8
IC26	B-4
IC27	B-5
IC28	D-1
IC29	B-6
IC30	B-7
IC31	B-7
IC32	D-2
IC33	A-3
IC305	E-1

TRANSISTOR	
Q3	D-3
Q4	D-3
Q5	D-3
Q6	C-8
Q7	A-4
Q9	D-8

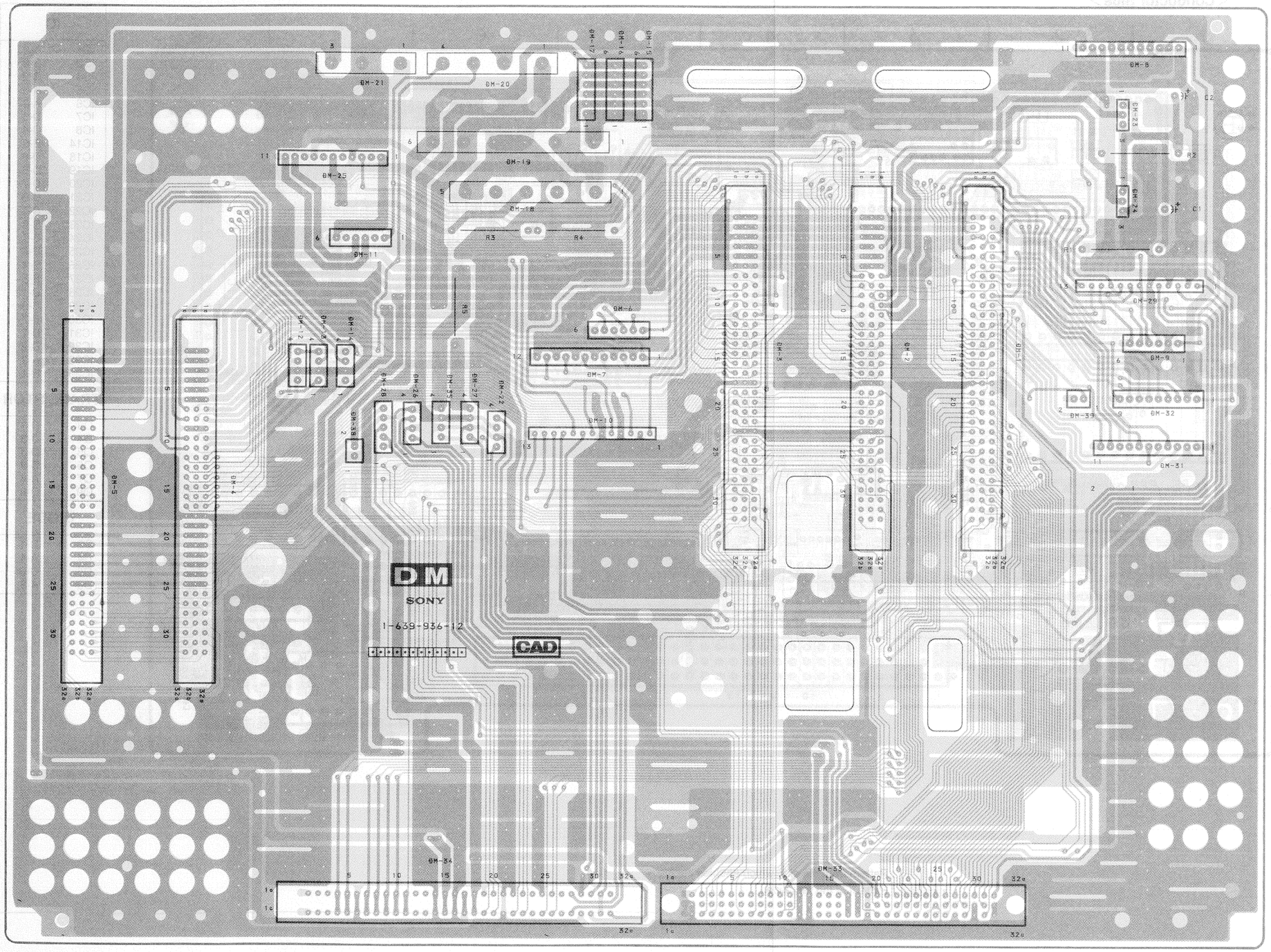
DIODE	
D2	D-1
D4	A-4
D5	C-6
D9	A-3

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

VPH-1272QM/Q
RM-1271

DM [DEFLECTION MOTHER BOARD]

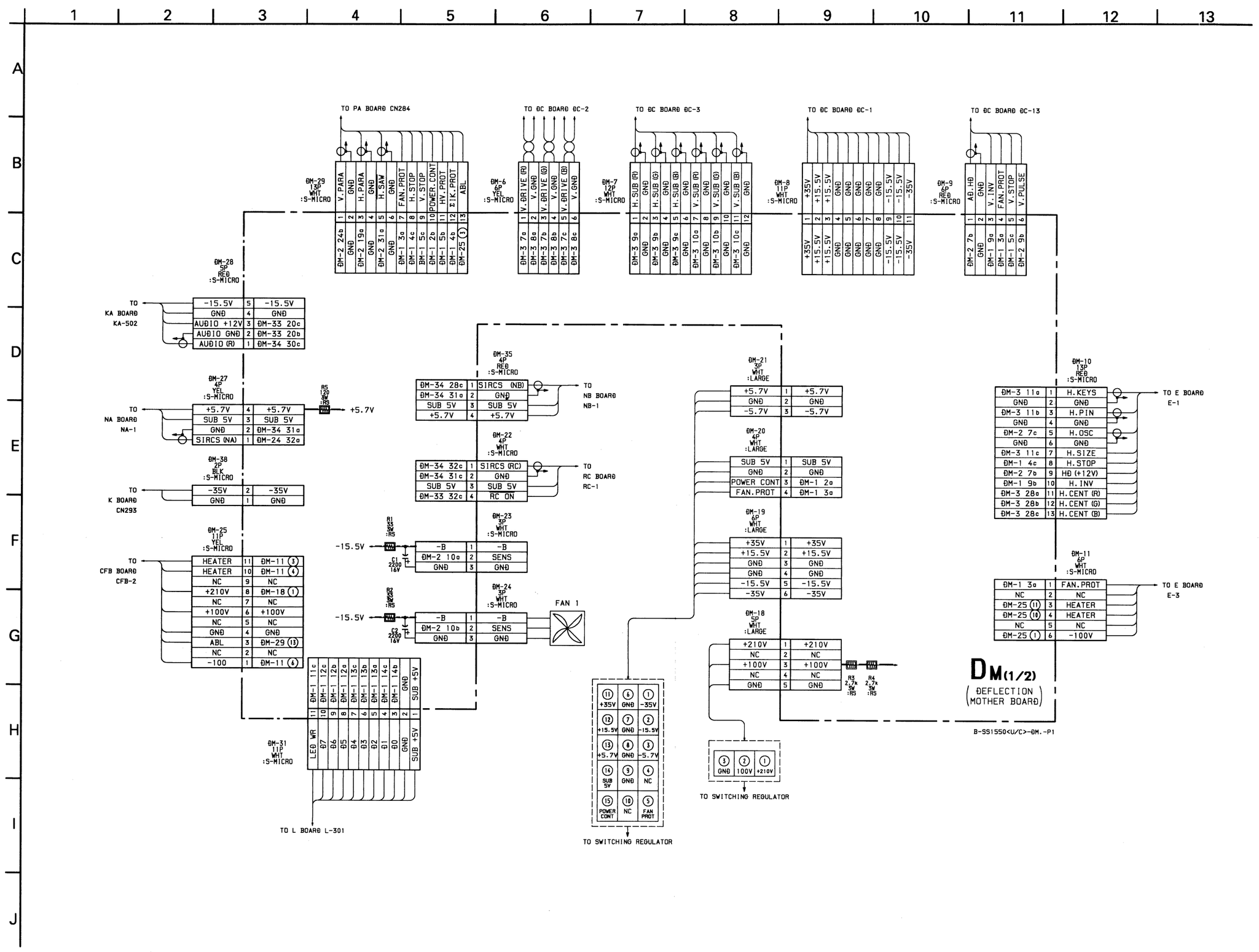
– DM BOARD –



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

Schematic diagram

DM (1/2) **board** ➡



Pattern from the side which enables seeing.
Pattern of the rear side.

DM (2/2)

(DEFLECTION MOTHER BOARD)

1 2 3 4 5 6 7 8 9 10 11 12

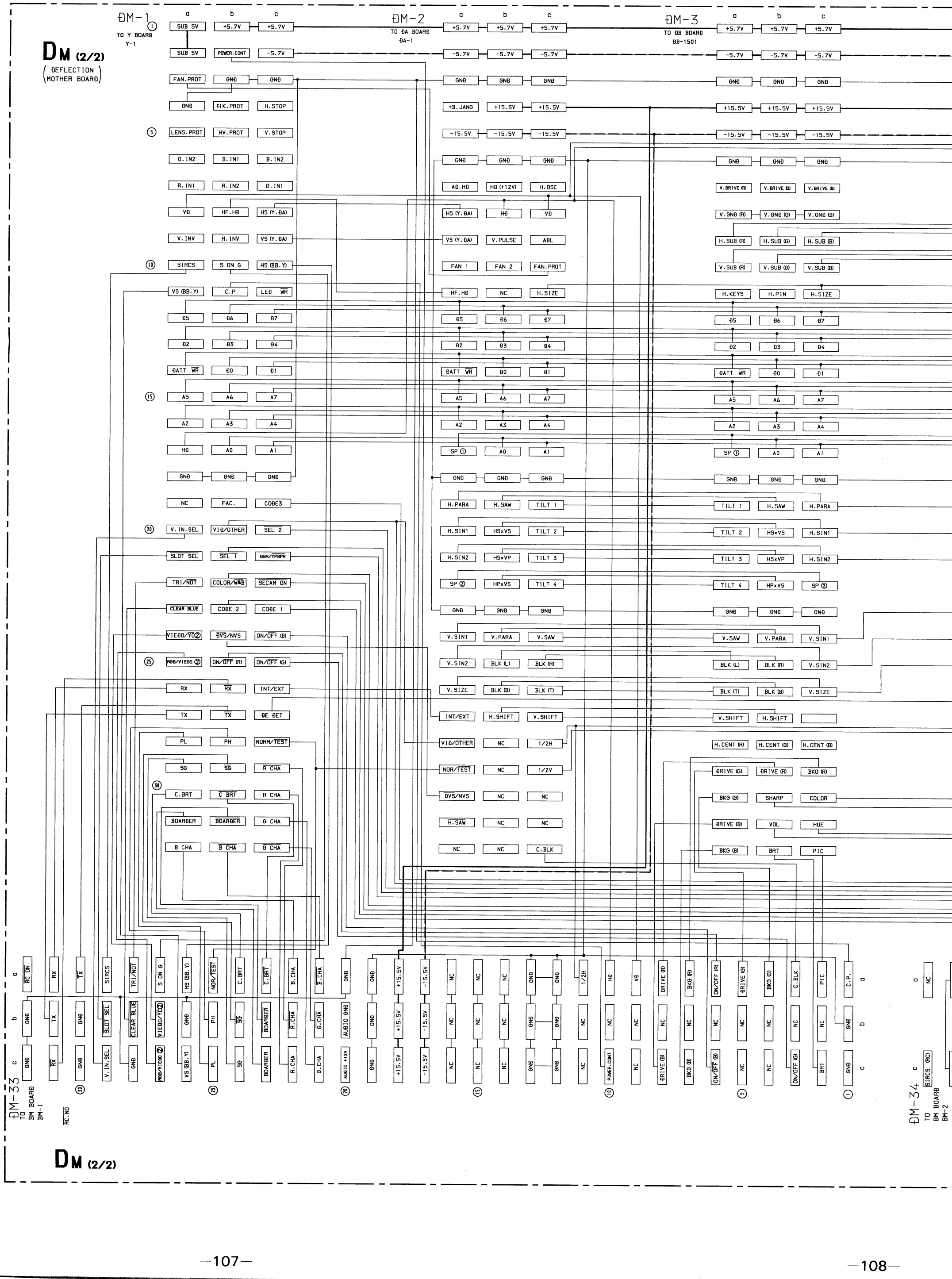
DM-1 TO Y BOARD Y-1

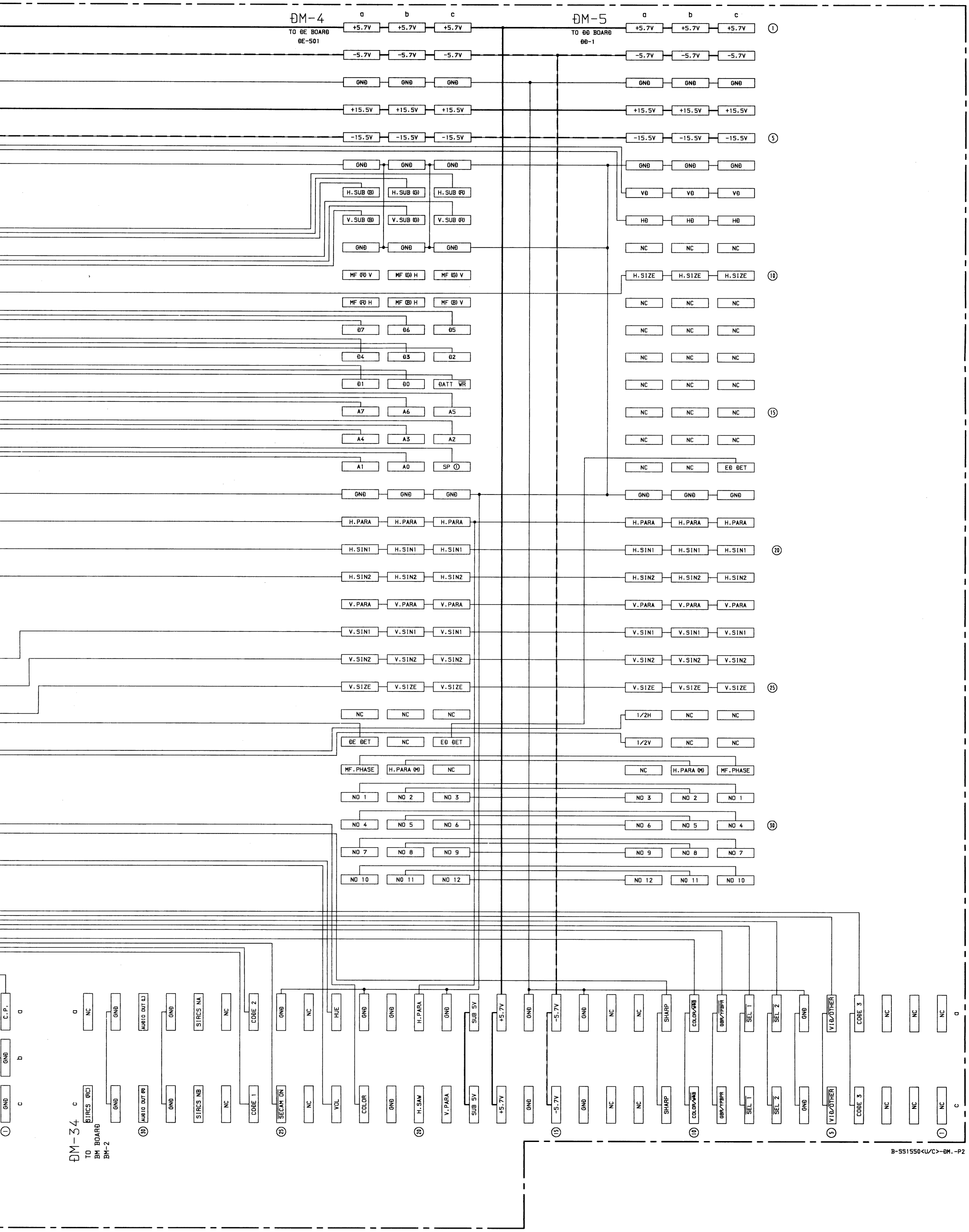
DM-2 TO DA BOARD DA-1

DM-3 TO DB BOARD DB-1501

DM-33 TO BM BOARD BM-1

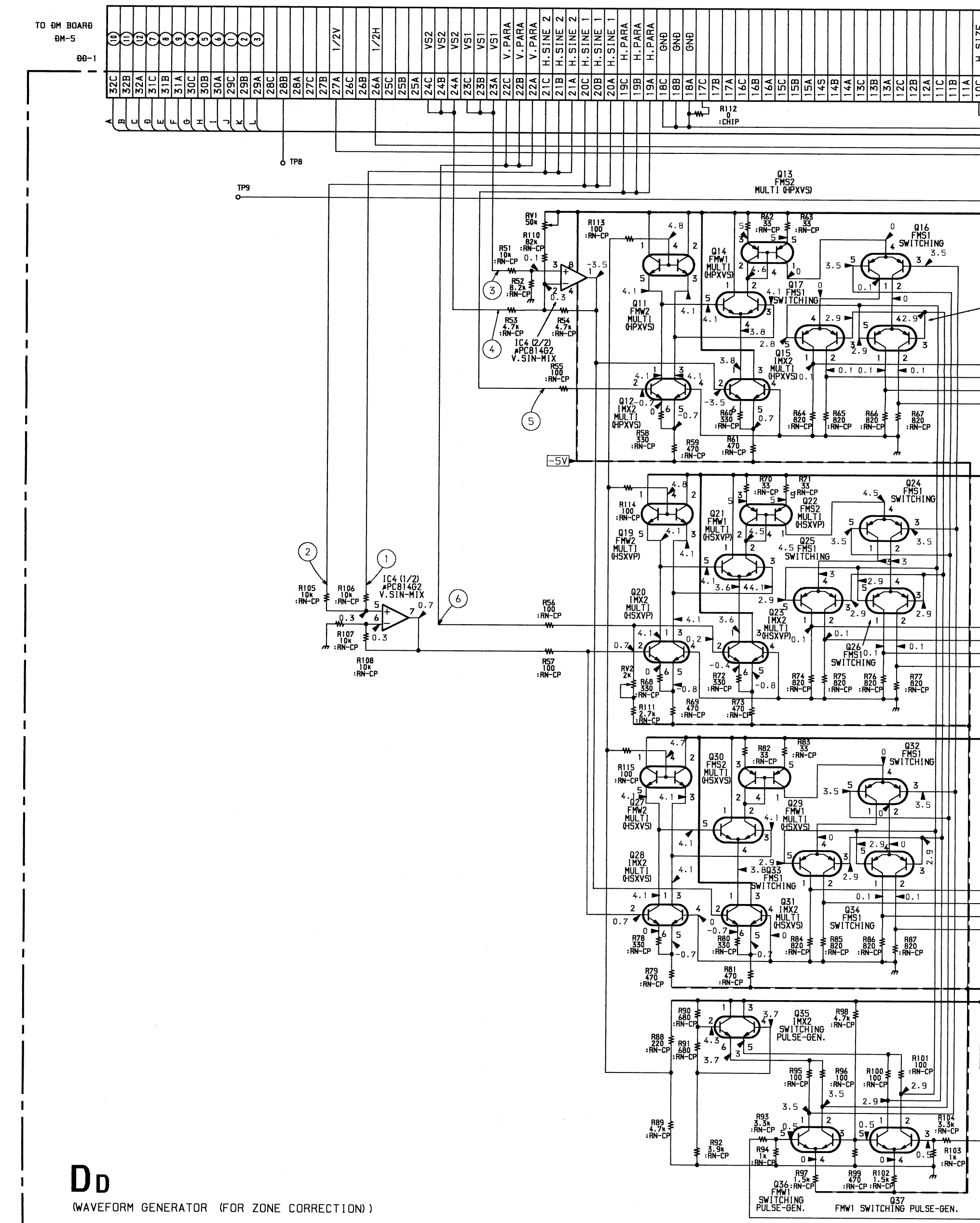
DM-34 TO BM BOARD BM-2

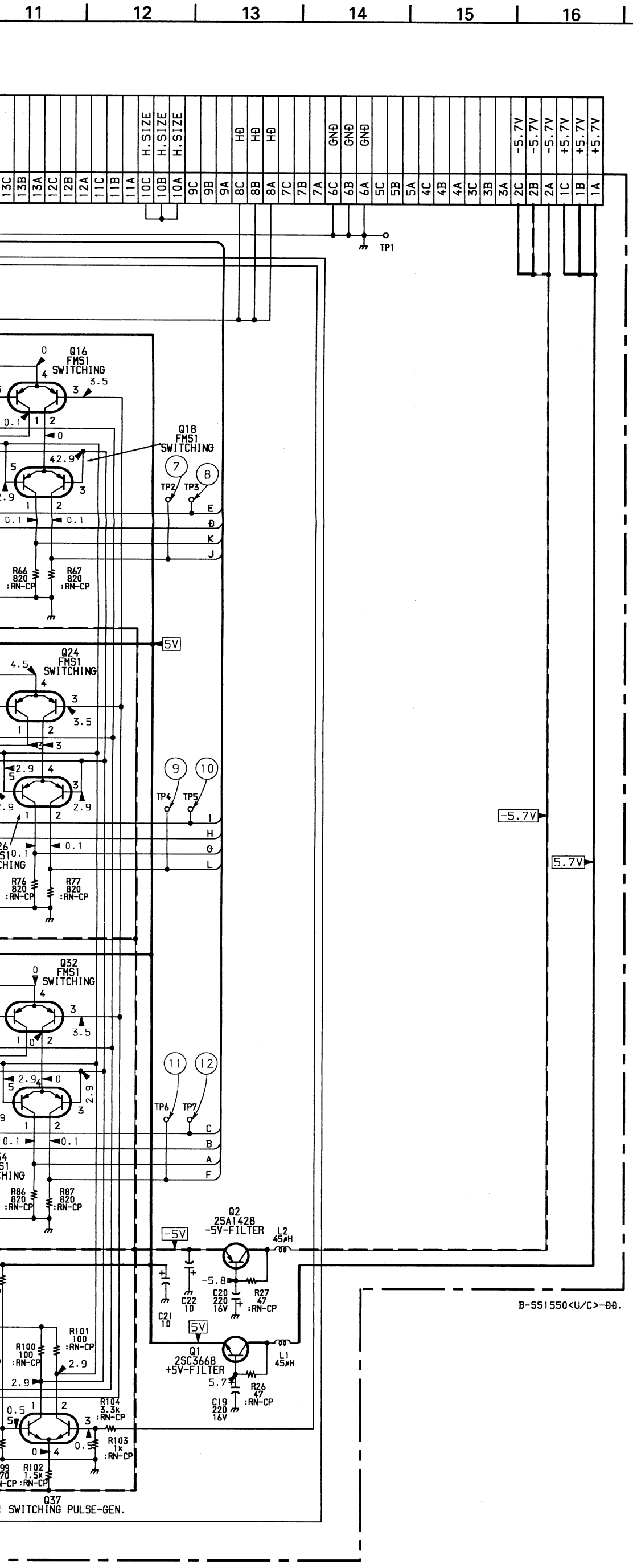



ĐM-4
TO ĐE BOARĐ
ĐE-501
ĐM-5
TO ĐĐ BOARĐ
ĐĐ-1
a
b
c
+5.7V
-5.7V
GNĐ
+15.5V
-15.5V
H.SUB (B)
H.SUB (G)
H.SUB (R)
V.SUB (B)
V.SUB (G)
V.SUB (R)
MF (R) V
MF (G) H
MF (G) V
MF (R) H
MF (B) H
MF (B) V
Đ7
Đ6
Đ5
Đ4
Đ3
Đ2
Đ1
Đ0
ĐATT WR
A7
A6
A5
A4
A3
A2
A1
A0
SP ①
VĐ
HĐ
NC
H.SIZE
EĐ ĐET
ĐE ĐET
H.PARA
H.SIN1
H.SIN2
V.PARA
V.SIN1
V.SIN2
V.SIZE
1/2H
1/2V
MF.PHASE
H.PARA (M)
NO 1
NO 2
NO 3
NO 4
NO 5
NO 6
NO 7
NO 8
NO 9
NO 10
NO 11
NO 12
ĐM-34
TO
BM BOARĐ
BM-2
C.P.
SIRCS (RC)
AUDIO OUT (L)
AUDIO OUT (R)
SIRCS NA
SIRCS NB
CODE 2
CODE 1
SECAM ON
HUE
VOL
COLOR
H.SAW
V.PARA
SUB 5V
SHARP
COLOR/YNR
GBR/YPBPR
SEL 1
SEL 2
VIĐ/OTHER
CODE 3
B-SS1550<U/C>-ĐM.-P2

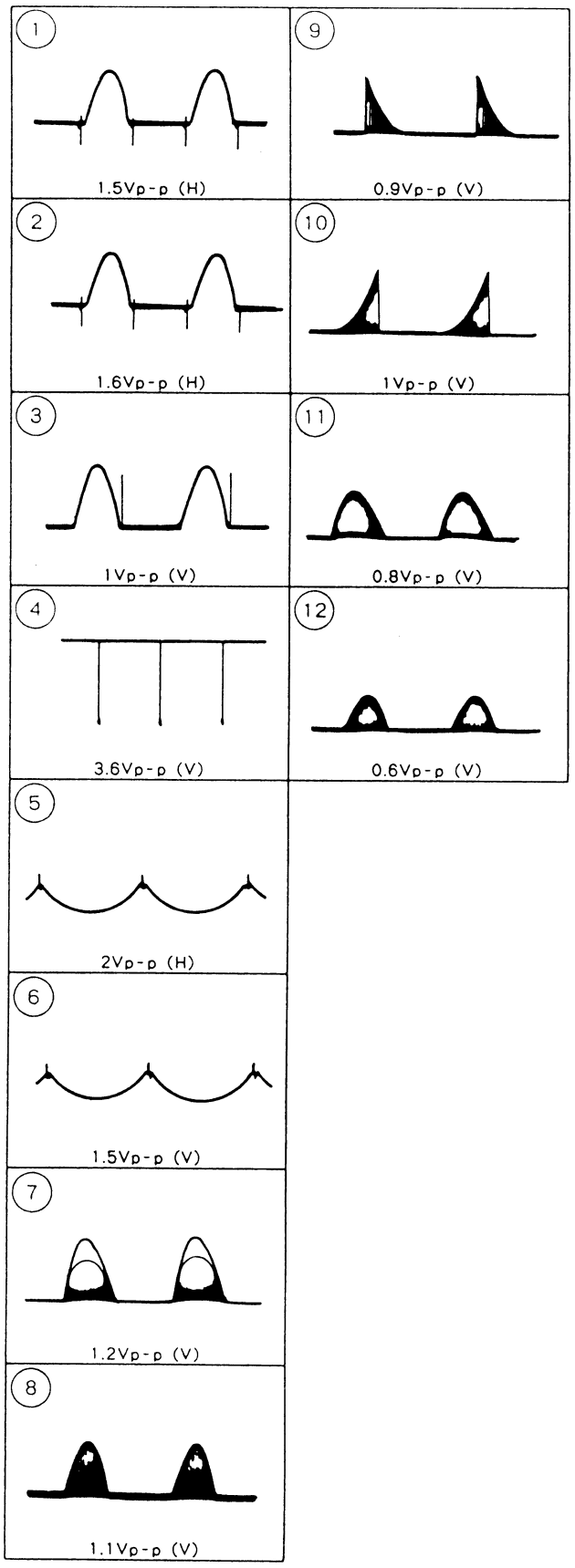
DD

(WAVEFORM GENERATOR (FOR ZONE CORRECTION))




11
12
13
14
15
16
17
13C
13B
13A
12C
12B
12A
11C
11B
11A
10C
10B
10A
9C
9B
9A
8C
8B
8A
7C
7B
7A
6C
6B
6A
5C
5B
5A
4C
4B
4A
3C
3B
3A
2C
2B
2A
1C
1B
1A
H.SIZE
H.SIZE
H.SIZE
HΦ
HΦ
HΦ
GNDΦ
GNDΦ
GNDΦ
-5.7V
-5.7V
-5.7V
+5.7V
+5.7V
+5.7V
TP1
Q16
FMS1
SWITCHING
Q18
FMS1
SWITCHING
TP2
TP3
E
Φ
K
J
R66
820
:RN-CP
R67
820
:RN-CP
5V
Q24
FMS1
SWITCHING
TP4
TP5
I
H
G
L
R76
820
:RN-CP
R77
820
:RN-CP
Q32
FMS1
SWITCHING
TP6
TP7
C
B
A
F
R86
820
:RN-CP
R87
820
:RN-CP
-5V
Q2
2SA1428
-5V-FILTER
L2
45μH
C22
10
C20
220
16V
R27
47
:RN-CP
C21
10
5V
Q1
2SC3668
+5V-FILTER
L1
45μH
C19
220
16V
R26
47
:RN-CP
R100
100
:RN-CP
R101
100
:RN-CP
R102
1.5k
:RN-CP
R103
1k
:RN-CP
R104
3.3k
:RN-CP
Q37
SWITCHING PULSE-GEN.
-5.7V
5.7V
B-SS1550<U/C>-ΦΦ.

DD BOARD


1
1.5Vp-p (H)
9
0.9Vp-p (V)
2
1.6Vp-p (H)
10
1Vp-p (V)
3
1Vp-p (V)
11
0.8Vp-p (V)
4
3.6Vp-p (V)
12
0.6Vp-p (V)
5
2Vp-p (H)
6
1.5Vp-p (V)
7
1.2Vp-p (V)
8
1.1Vp-p (V)

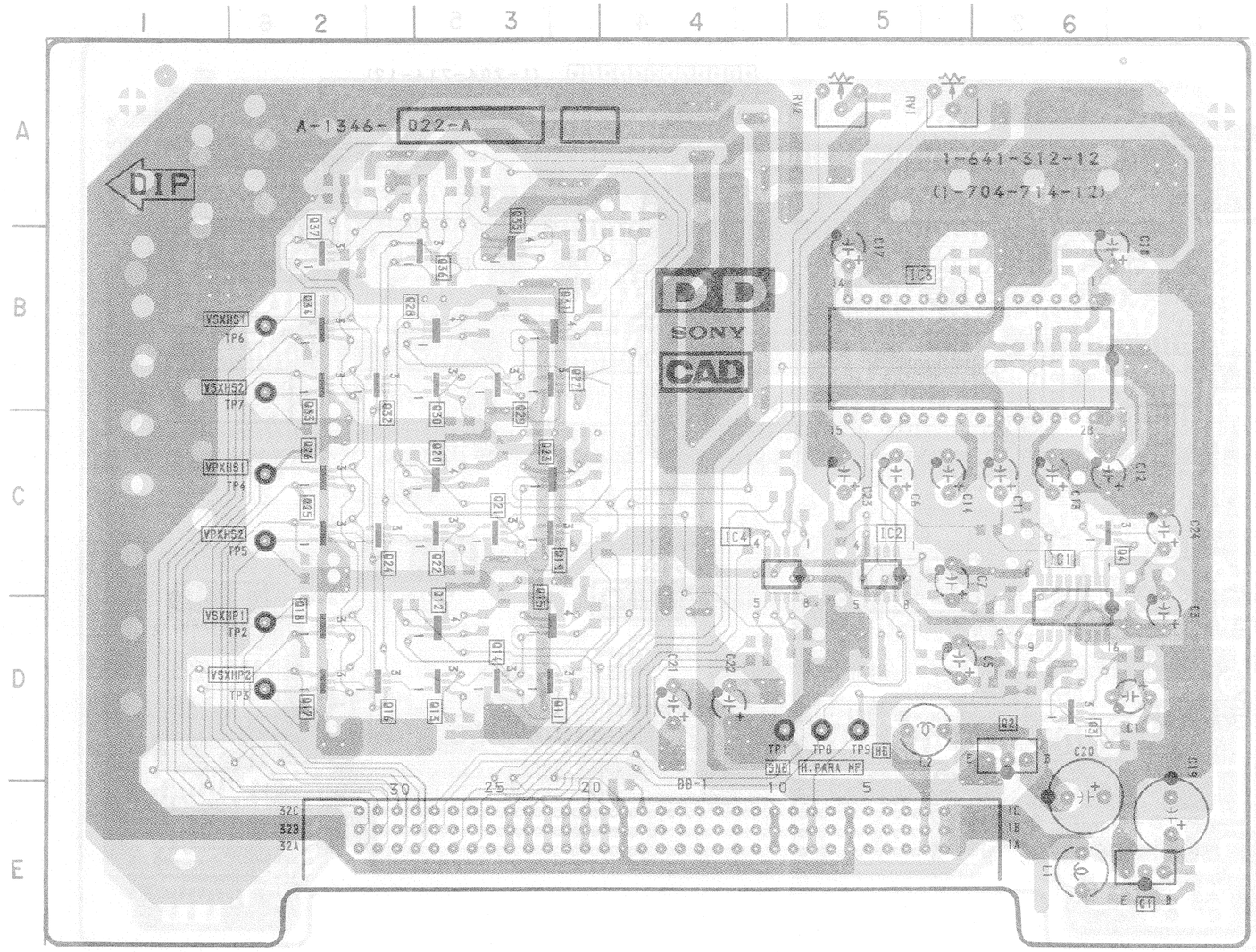
DD

[WAVEFORM GENERATOR (FOR ZONE CORRECTION)]

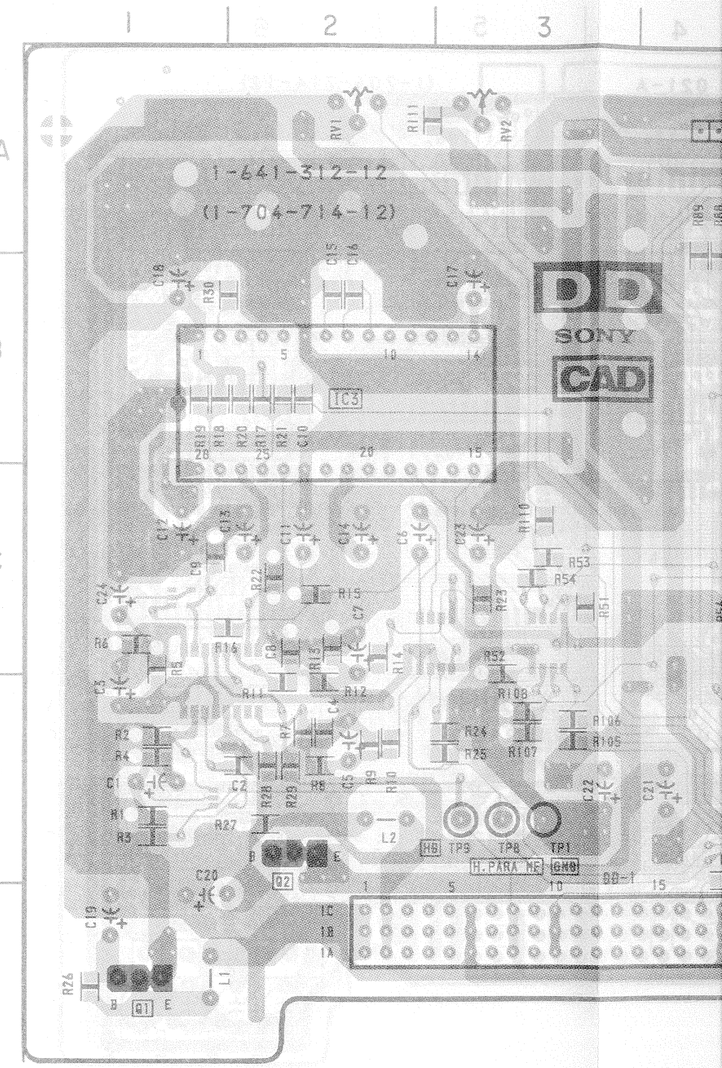
DD BOARD (COMPONENT SIDE)

IC	
IC4	C-4
TRANSISTOR	
Q1	E-6
Q2	D-6
Q11	D-3
Q12	D-3
Q13	D-3
Q14	D-3
Q15	D-3
Q16	D-2
Q17	D-2
Q18	D-2
Q19	C-3
Q20	C-3
Q21	C-3
Q22	C-3
Q23	C-3
Q24	C-2
Q25	C-2
Q26	C-2
Q27	B-3
Q28	B-3
Q29	B-3
Q30	B-3
Q31	B-3
Q32	B-2
Q33	B-2
Q34	B-2
Q35	B-3
Q36	B-3
Q37	B-2
VARIABLE RESISTOR	
RV1	A-5
RV2	A-5

– DD BOARD – ＜Component Side＞



＜Conductor Side＞

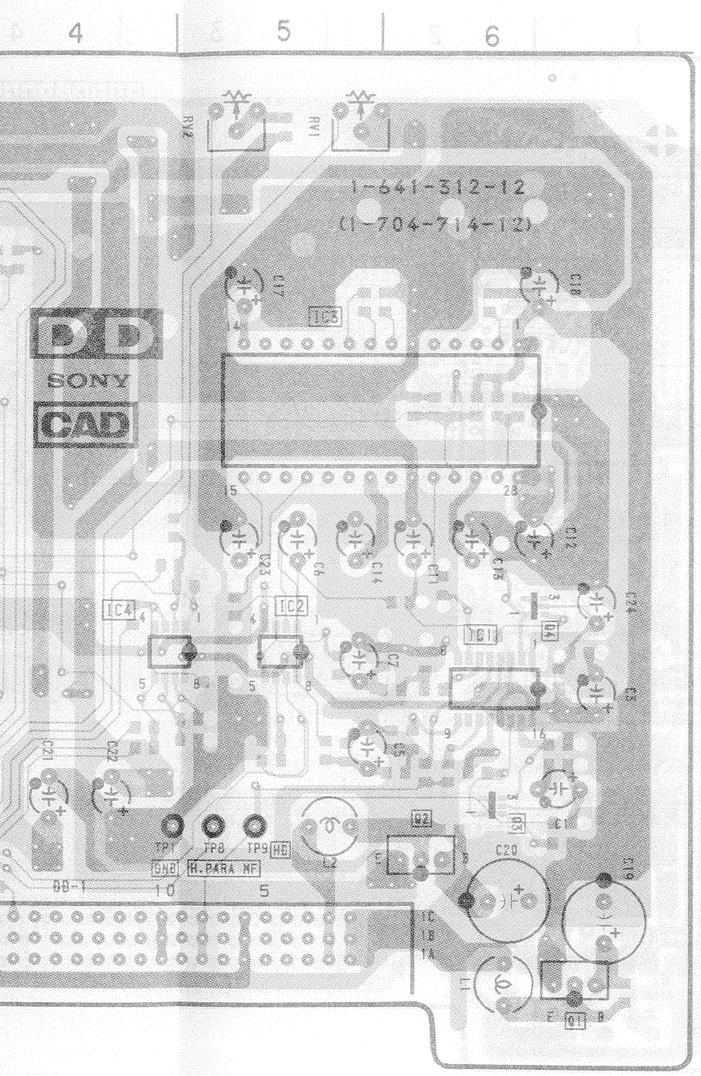


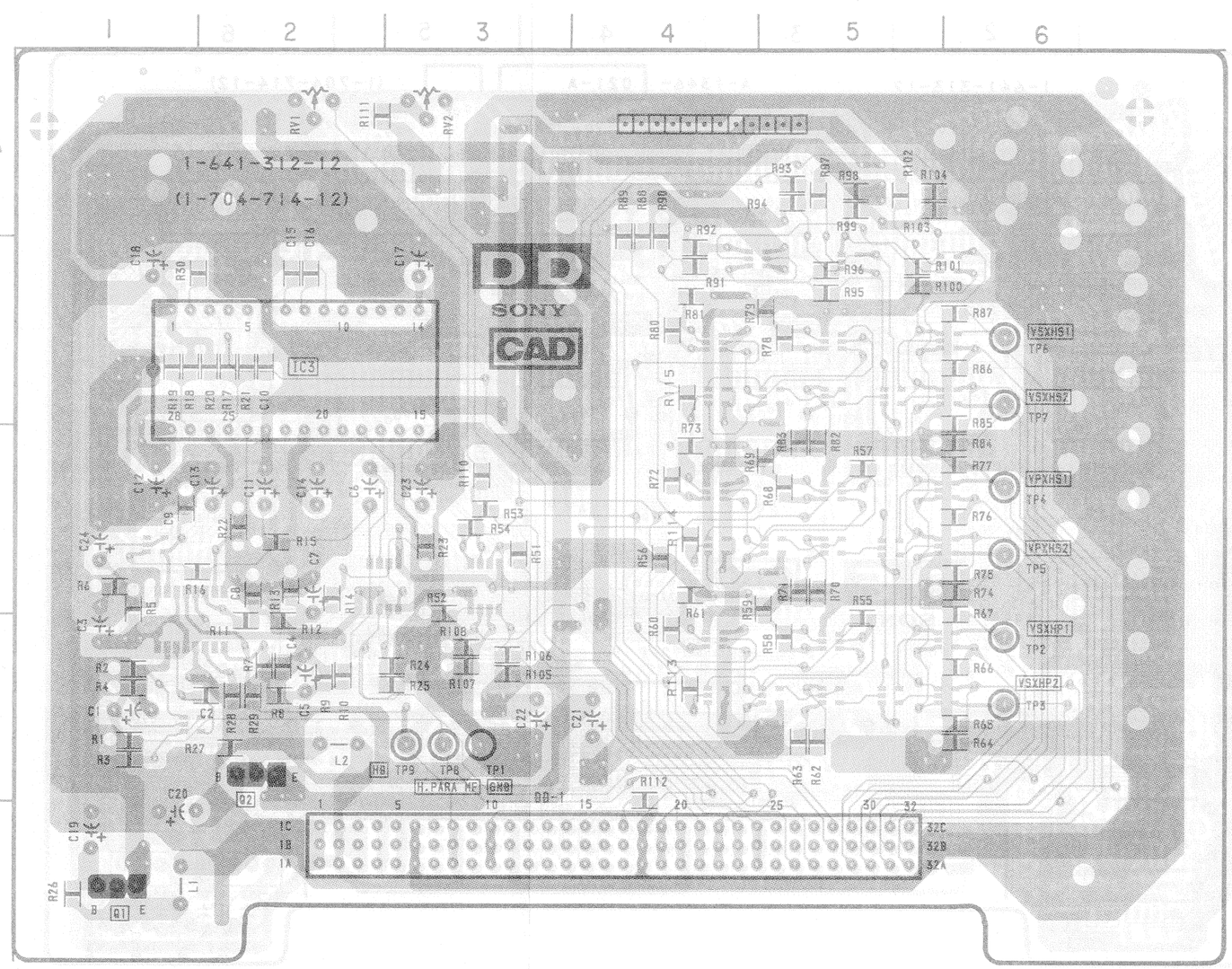
VPH-1272QM/Q
RM-1271

ZONE CORRECTION)]

VPH-1272QM/Q
RM-1271

<Conductor Side>





DD BOARD
(CONDUCTOR SIDE)

TRANSISTOR	
Q1	E-1
Q2	D-2
VARIABLE RESISTOR	
RV1	A-2
RV2	A-3

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

VPH-1272QM/Q
RM-1271

DE

[ELECTRONIC VR (RESISTRATION ADJ)]

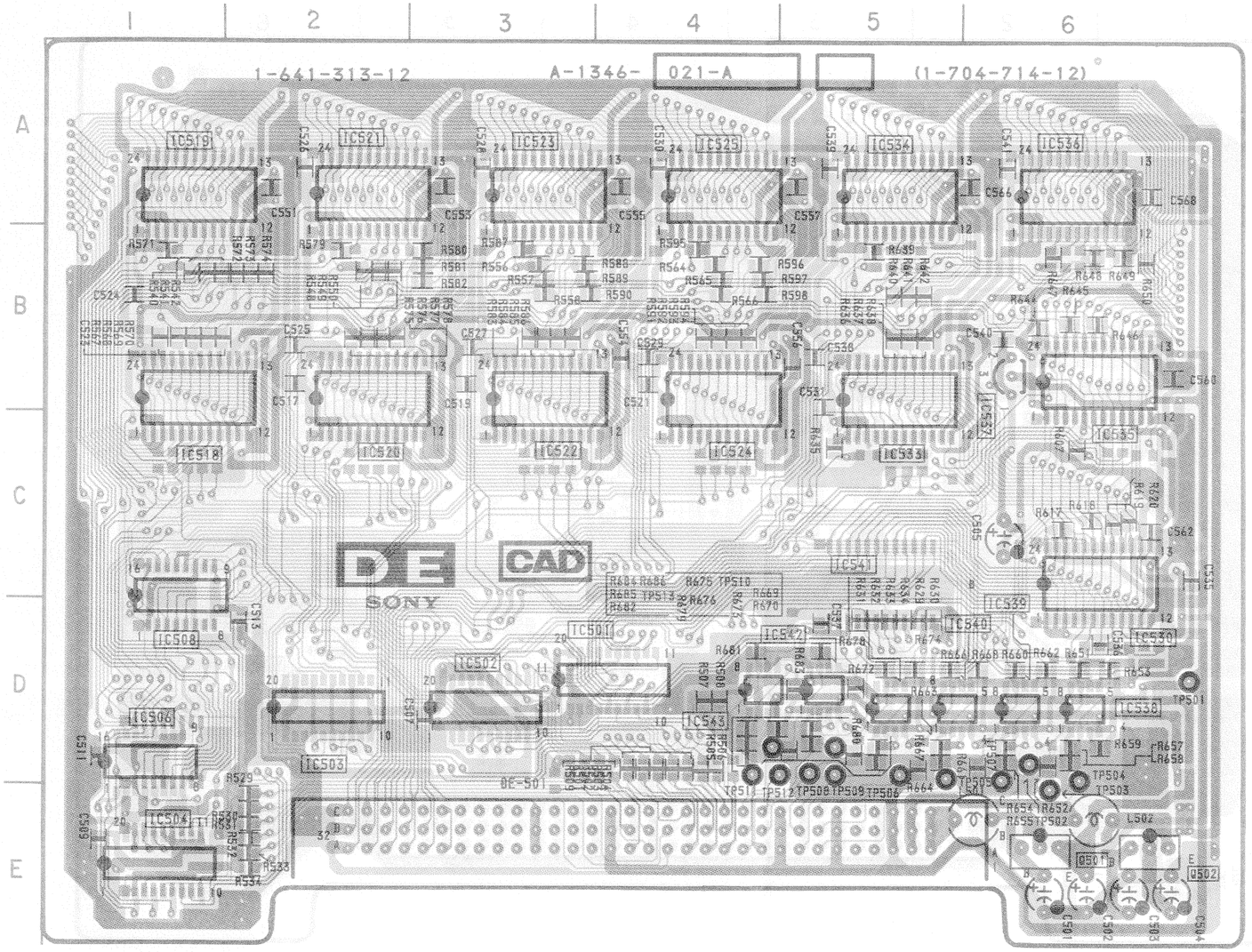
DE BOARD
(COMPONENT SIDE)

IC	
IC501	D-4
IC502	D-3
IC503	D-2
IC504	E-1
IC506	D-1
IC508	D-1
IC518	B-1
IC519	A-1
IC520	B-2
IC521	A-2
IC522	B-2
IC523	A-3
IC524	B-4
IC525	A-4
IC533	B-5
IC534	A-5
IC535	B-6
IC536	A-6
IC537	B-6
IC538	D-6
IC539	D-6
IC540	D-6

TRANSISTOR	
Q501	E-6
Q502	E-6

– DE BOARD –

<Component Side>



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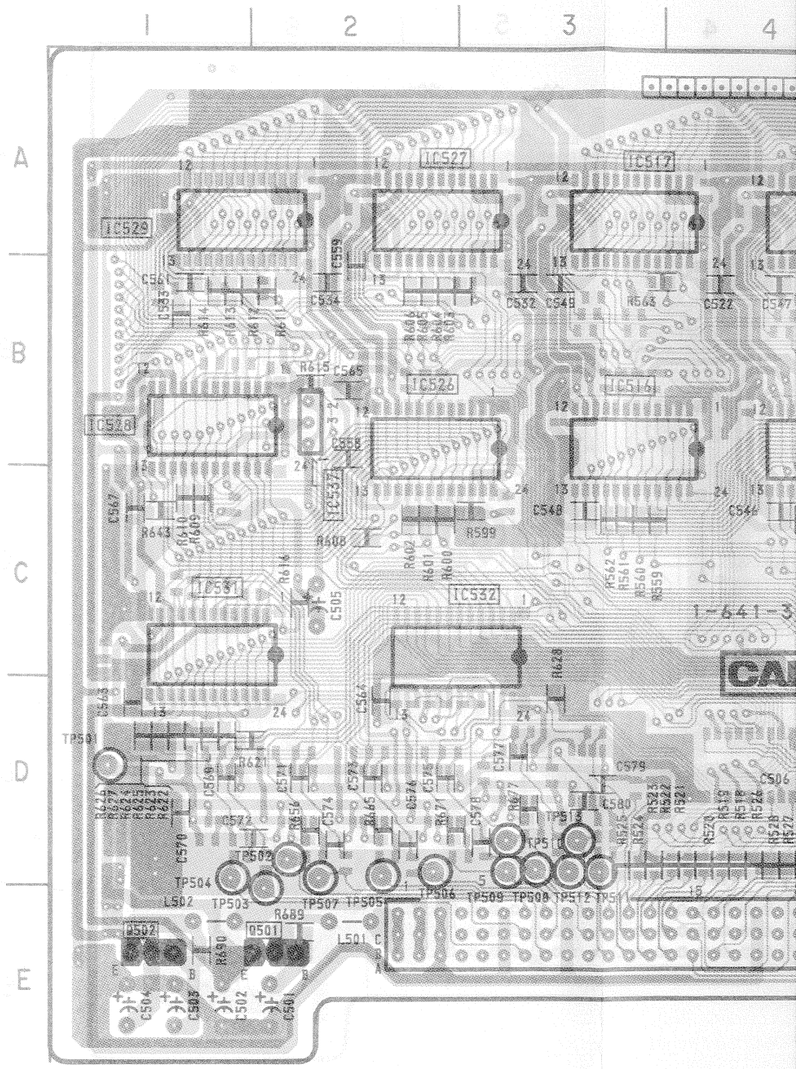

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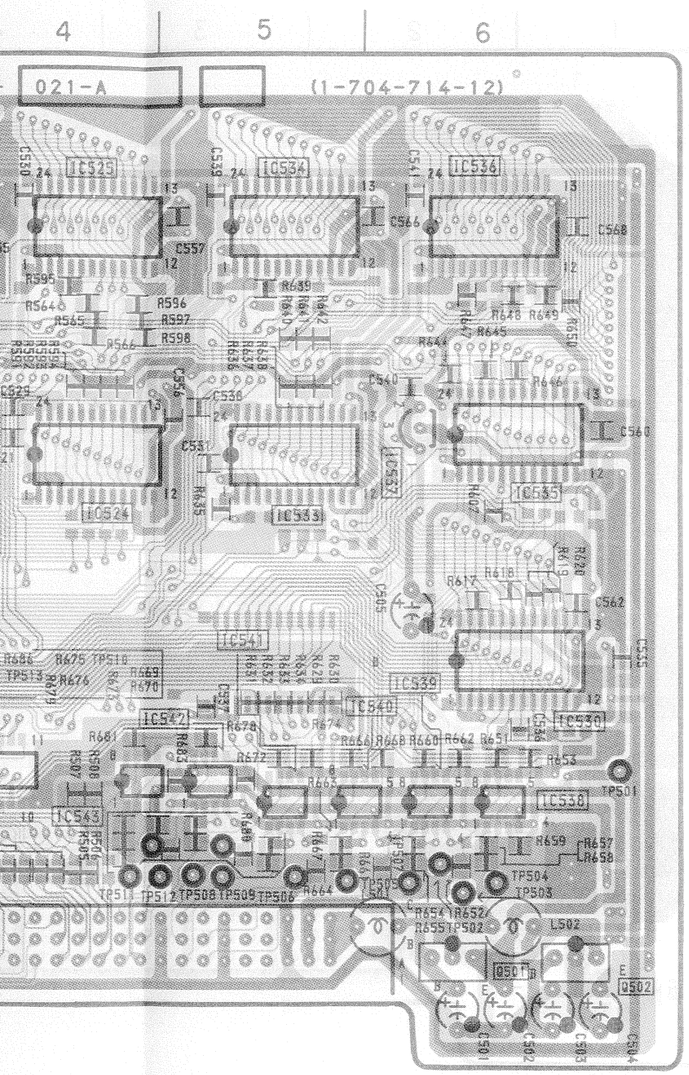
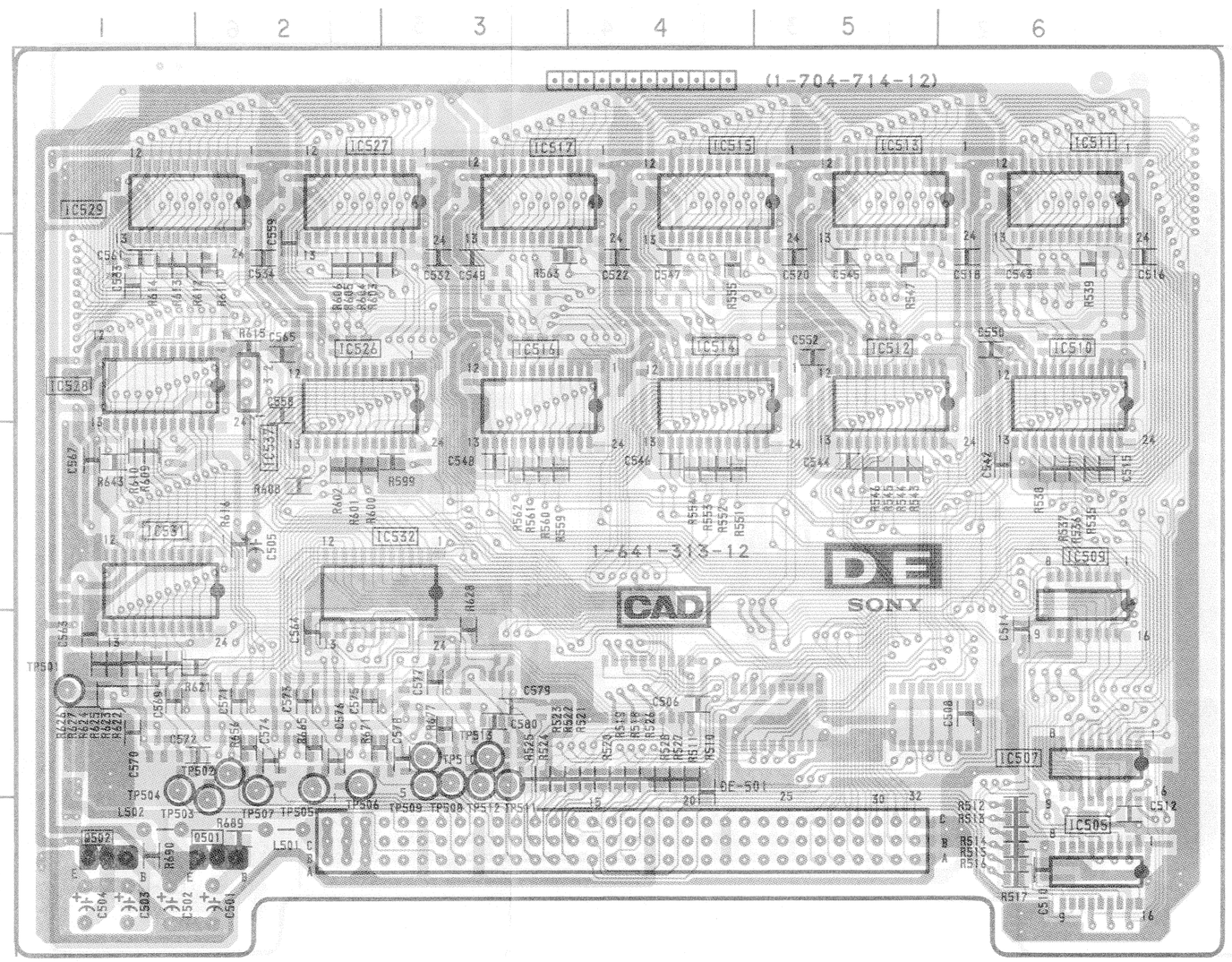
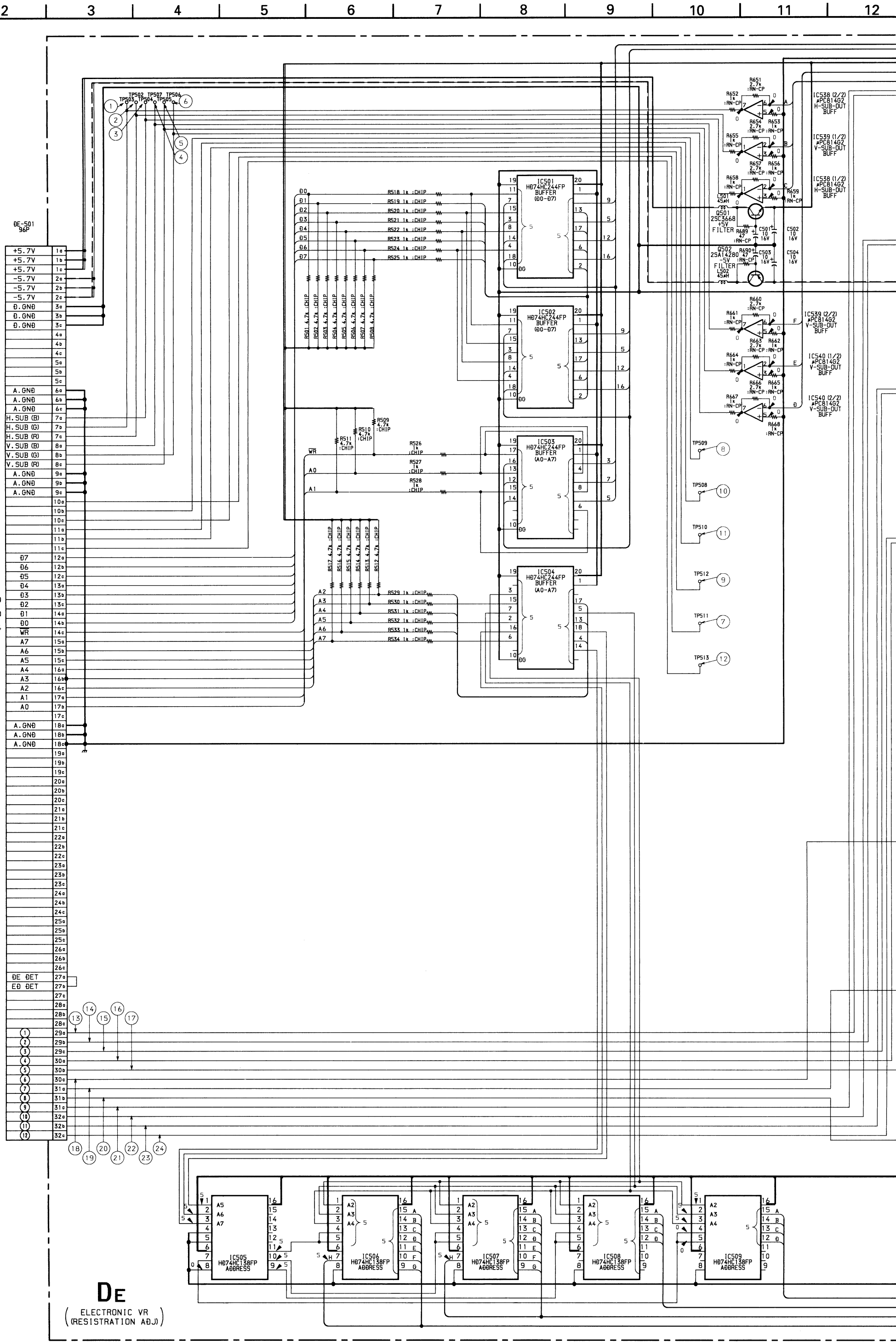


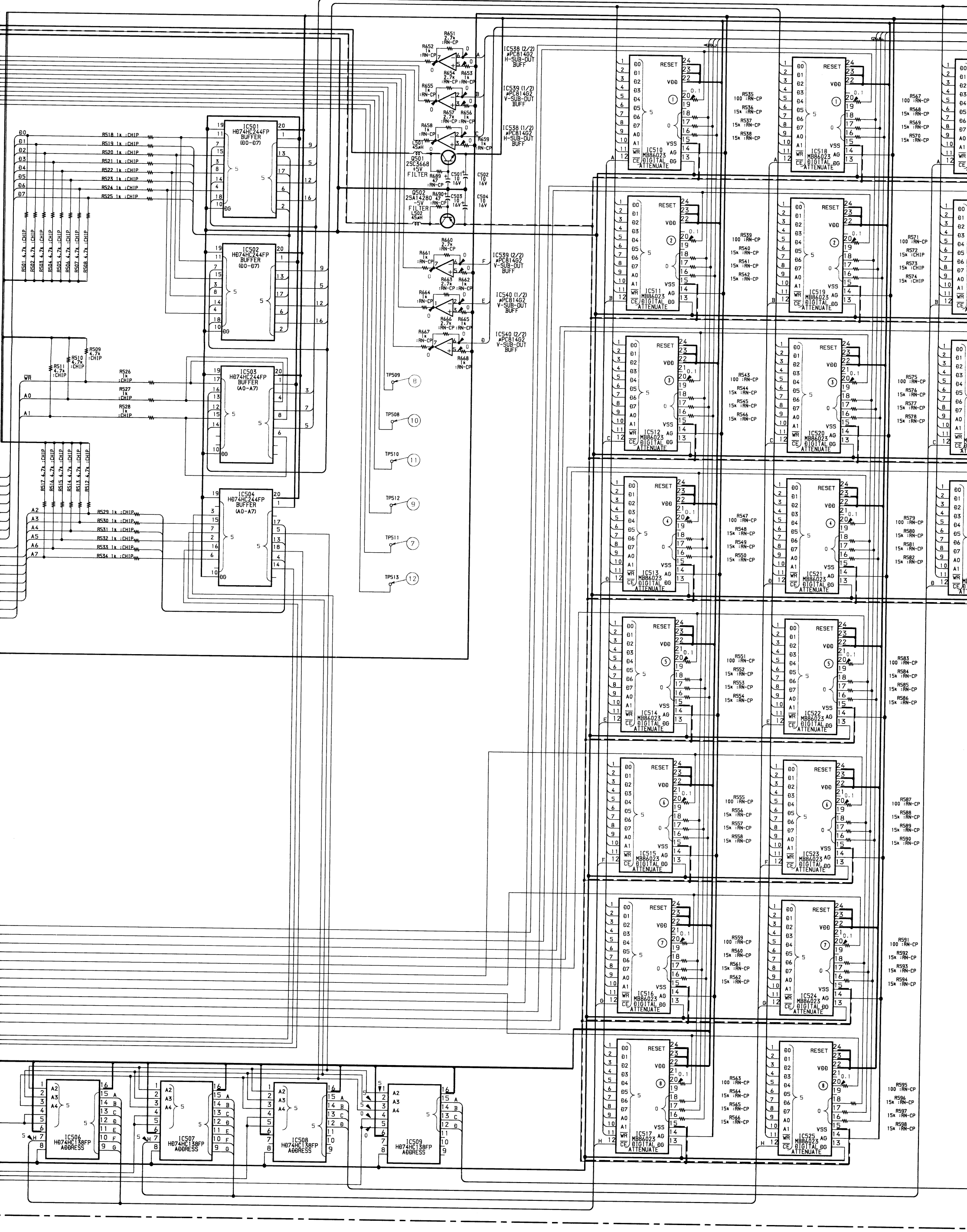


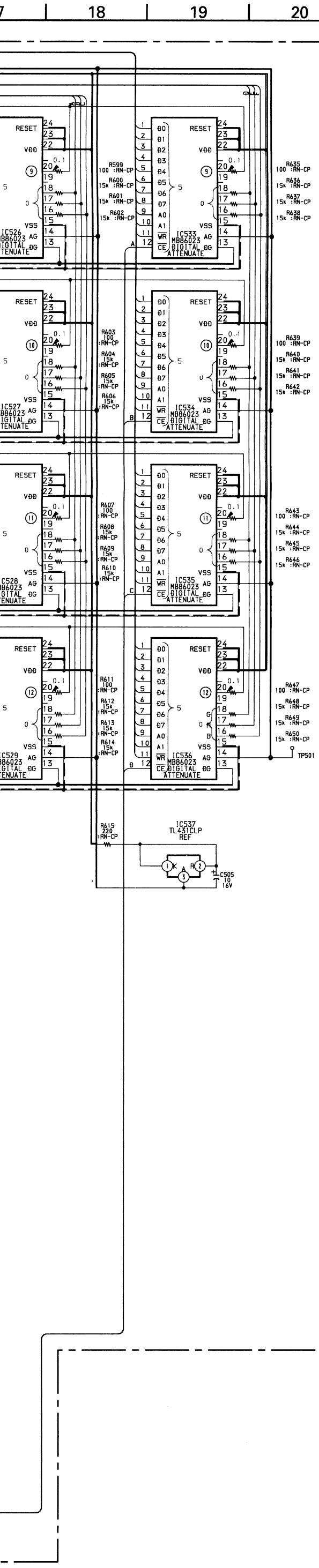
DE BOARD (CONDUCTOR SIDE)

IC	
IC505	E-6
IC507	D-6
IC509	C-6
IC510	B-6
IC511	A-6
IC512	B-5
IC513	A-5
IC514	B-4
IC515	A-4
IC516	B-3
IC517	A-3
IC526	B-2
IC527	A-2
IC528	B-1
IC529	A-1
IC537	B-2
TRANSISTOR	
Q501	E-2
Q502	E-1

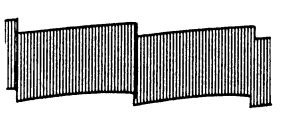
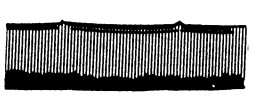
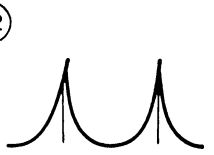
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

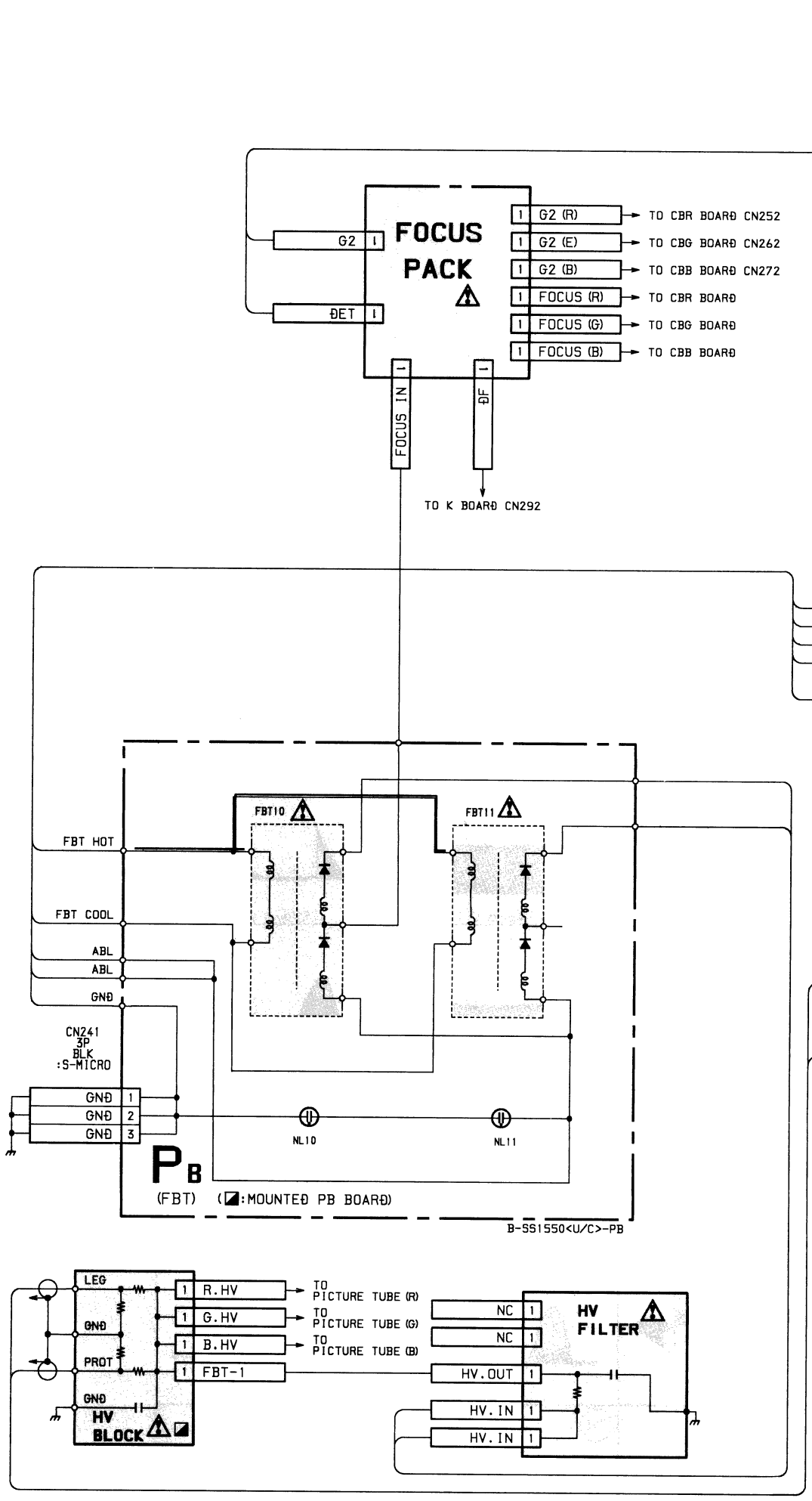

ÐE-501
96P
+5.7V
-5.7V
Ð.GNÐ
A.GNÐ
H.SUB (B)
H.SUB (G)
H.SUB (R)
V.SUB (B)
V.SUB (G)
V.SUB (R)
ÐE ÐET
EÐ ÐET
TO
ÐM BOARÐ
ÐM-4
TP502 TP507 TP506
TP503 TP504 TP505
IC501 HÐ74HC244FP BUFFER (ÐO-Ð7)
IC502 HÐ74HC244FP BUFFER (ÐO-Ð7)
IC503 HÐ74HC244FP BUFFER (AO-A7)
IC504 HÐ74HC244FP BUFFER (AO-A7)
R518 1k :CHIP
R519 1k :CHIP
R520 1k :CHIP
R521 1k :CHIP
R522 1k :CHIP
R523 1k :CHIP
R524 1k :CHIP
R525 1k :CHIP
R501 4.7k :CHIP
R502 4.7k :CHIP
R503 4.7k :CHIP
R504 4.7k :CHIP
R505 4.7k :CHIP
R506 4.7k :CHIP
R507 4.7k :CHIP
R508 4.7k :CHIP
R509 4.7k :CHIP
R510 4.7k :CHIP
R511 4.7k :CHIP
R526 1k :CHIP
R527 1k :CHIP
R528 1k :CHIP
R529 1k :CHIP
R530 1k :CHIP
R531 1k :CHIP
R532 1k :CHIP
R533 1k :CHIP
R534 1k :CHIP
R517 4.7k :CHIP
R516 4.7k :CHIP
R515 4.7k :CHIP
R514 4.7k :CHIP
R513 4.7k :CHIP
R512 4.7k :CHIP
R651 2.7k :RN-CP
R652 1k :RN-CP
R653 1k :RN-CP
R654 2.7k :RN-CP
R655 1k :RN-CP
R656 1k :RN-CP
R657 2.7k :RN-CP
R658 1k :RN-CP
R659 1k :RN-CP
L501 45μH
L502 45μH
Q501 2SC3668 +5V FILTER
Q502 2SA14280 -5V FILTER
R689 47 :RN-CP
R690 47 :RN-CP
C501 10 16V
C502 10 16V
C503 10 16V
C504 10 16V
R660 2.7k :RN-CP
R661 1k :RN-CP
R662 1k :RN-CP
R663 2.7k :RN-CP
R664 1k :RN-CP
R665 1k :RN-CP
R666 2.7k :RN-CP
R667 1k :RN-CP
R668 1k :RN-CP
IC538 (2/2) μPC814G2 H-SUB-OUT BUFF
IC539 (1/2) μPC814G2 V-SUB-OUT BUFF
IC538 (1/2) μPC814G2 H-SUB-OUT BUFF
IC539 (2/2) μPC814G2 V-SUB-OUT BUFF
IC540 (1/2) μPC814G2 V-SUB-OUT BUFF
IC540 (2/2) μPC814G2 V-SUB-OUT BUFF
TP509
TP508
TP510
TP512
TP511
TP513
IC505 HÐ74HC138FP ADDRESS
IC506 HÐ74HC138FP ADDRESS
IC507 HÐ74HC138FP ADDRESS
IC508 HÐ74HC138FP ADDRESS
IC509 HÐ74HC138FP ADDRESS
DE
ELECTRONIC VR
(RESISTRATION ADJ)

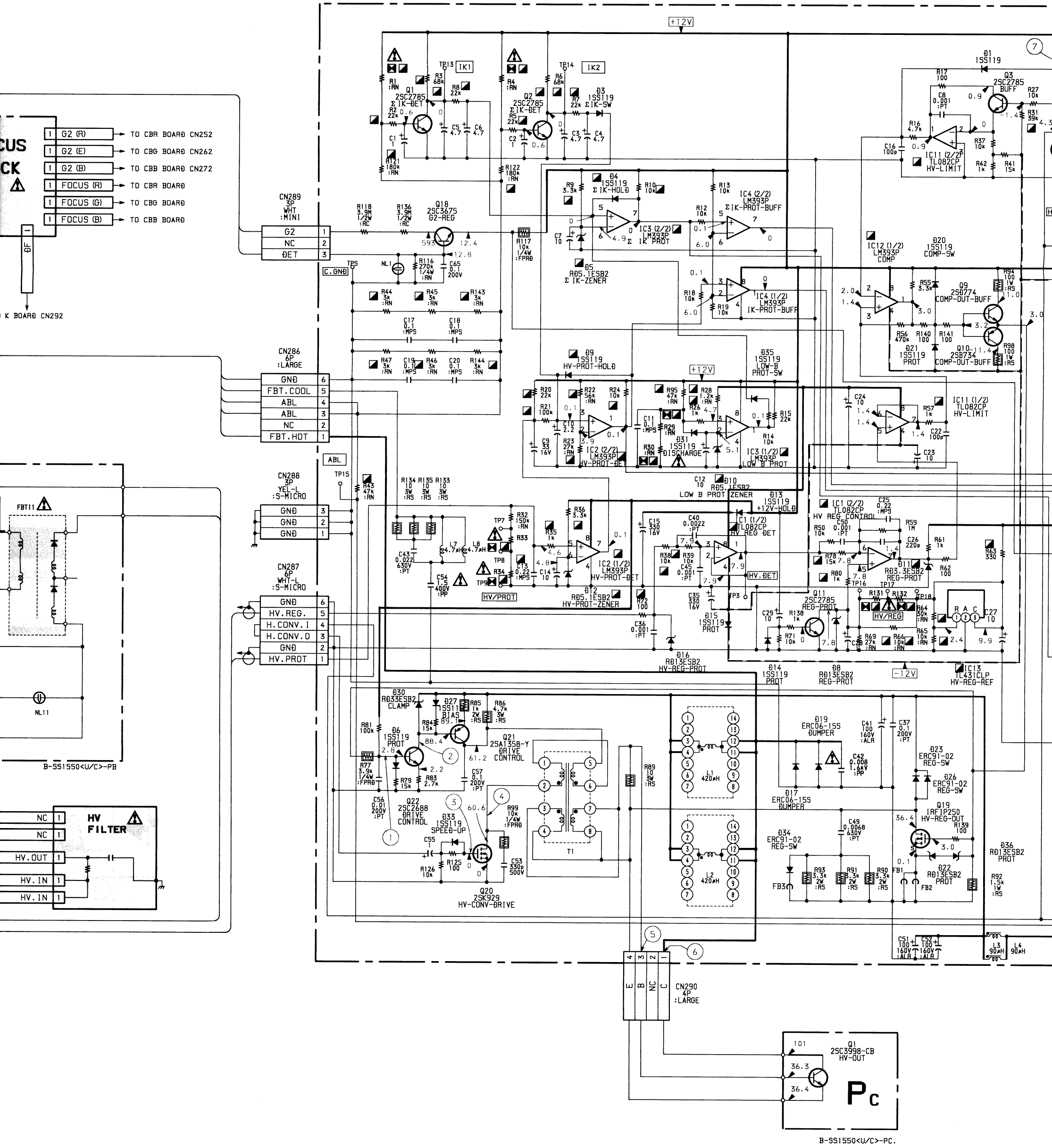

IC501 HD74HC244FP BUFFER (D0-D7)
IC502 HD74HC244FP BUFFER (D0-D7)
IC503 HD74HC244FP BUFFER (A0-A7)
IC504 HD74HC244FP BUFFER (A0-A7)
IC506 HD74HC138FP ADDRESS
IC507 HD74HC138FP ADDRESS
IC508 HD74HC138FP ADDRESS
IC509 HD74HC138FP ADDRESS
IC510 MB86023 DIGITAL ATTENUATE
IC511 MB86023 DIGITAL ATTENUATE
IC512 MB86023 DIGITAL ATTENUATE
IC513 MB86023 DIGITAL ATTENUATE
IC514 MB86023 DIGITAL ATTENUATE
IC515 MB86023 DIGITAL ATTENUATE
IC516 MB86023 DIGITAL ATTENUATE
IC517 MB86023 DIGITAL ATTENUATE
IC518 MB86023 DIGITAL ATTENUATE
IC519 MB86023 DIGITAL ATTENUATE
IC520 MB86023 DIGITAL ATTENUATE
IC521 MB86023 DIGITAL ATTENUATE
IC522 MB86023 DIGITAL ATTENUATE
IC523 MB86023 DIGITAL ATTENUATE
IC524 MB86023 DIGITAL ATTENUATE
IC538 (2/2) μPC814G2 H-SUB-OUT BUFF
IC539 (1/2) μPC814G2 V-SUB-OUT BUFF
IC539 (2/2) μPC814G2 V-SUB-OUT BUFF
IC540 (1/2) μPC814G2 V-SUB-OUT BUFF
IC540 (2/2) μPC814G2 V-SUB-OUT BUFF
Q501 2SC3668 +5V FILTER
Q502 2SA14280 -5V FILTER
TP509
TP508
TP510
TP512
TP511
TP513

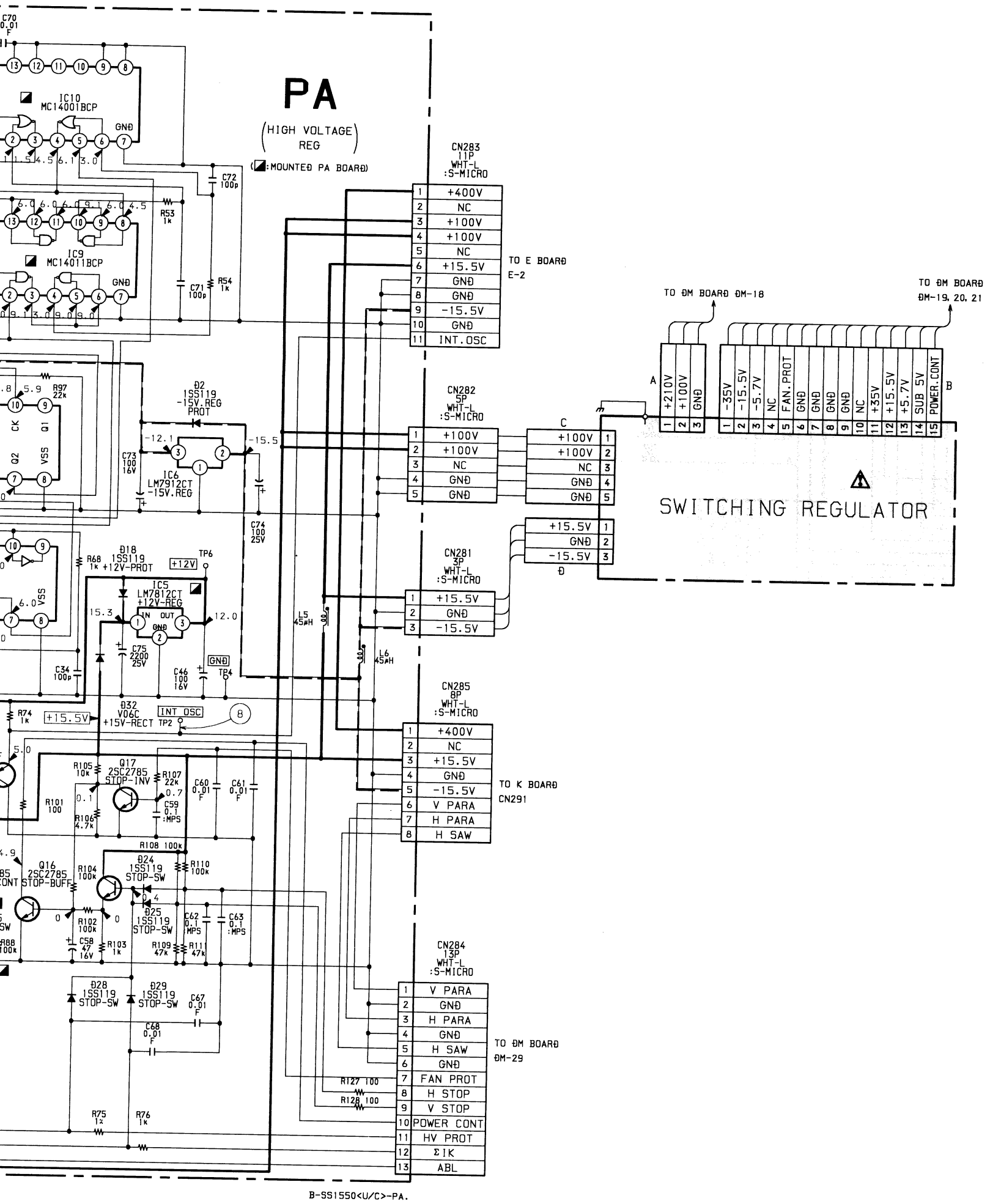


DE BOARD

1 0.48Vp-p (V)	9 0.5Vp-p (V)	17 0.9Vp-p (V)
2 0.42Vp-p (V)	10 0.7Vp-p (V)	18 1Vp-p (V)
3  0.7Vp-p (V)	11  0.66Vp-p (V)	19 1.5Vp-p (V)
4 0.72Vp-p (V)	12  0.5Vp-p (V)	20 1.8Vp-p (V)
5 0.96Vp-p (V)	13 1.1Vp-p (V)	21 0.7Vp-p (V)
6 0.7Vp-p (V)	14 0.9Vp-p (V)	22 0.6Vp-p (V)
7 0.44Vp-p (V)	15 0.9Vp-p (V)	23 0.8Vp-p (V)
8 0.7Vp-p (V)	16 8Vp-p (V)	24 0.6Vp-p (V)

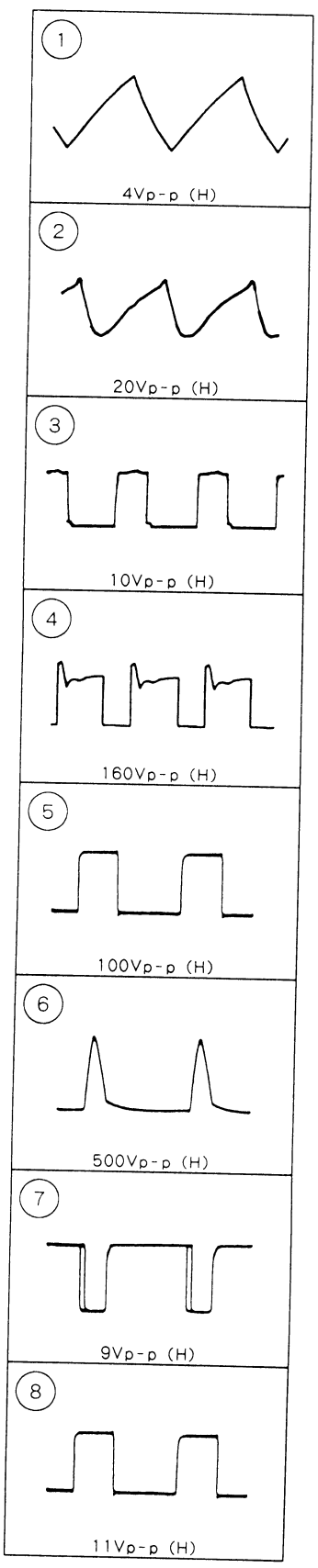

FOCUS PACK
G2
ĐET
G2 (R)
G2 (E)
G2 (B)
FOCUS (R)
FOCUS (G)
FOCUS (B)
TO CBR BOARĐ CN252
TO CBG BOARĐ CN262
TO CBB BOARĐ CN272
TO CBR BOARĐ
TO CBG BOARĐ
TO CBB BOARĐ
FOCUS IN
ĐF
TO K BOARĐ CN292
CN289
3P
WHT
:MINI
G2
NC
ĐET
CN286
6P
:LARGE
GNĐ
FBT.COOL
ABL
ABL
NC
FBT.HOT
CN288
3P
YEL-L
:S-MICRO
GNĐ
GNĐ
GNĐ
CN287
6P
WHT-L
:S-MICRO
GNĐ
HV.REG.
H.CONV.I
H.CONV.O
GNĐ
HV.PROT
FBT HOT
FBT COOL
ABL
ABL
GNĐ
FBT10
FBT11
CN241
3P
BLK
:S-MICRO
GNĐ
GNĐ
GNĐ
NL10
NL11
PB
(FBT)
(◪:MOUNTEĐ PB BOARĐ)
B-SS1550<U/C>-PB
LEG
GNĐ
PROT
GNĐ
HV BLOCK
R.HV
G.HV
B.HV
FBT-1
TO PICTURE TUBE (R)
TO PICTURE TUBE (G)
TO PICTURE TUBE (B)
NC
NC
HV.OUT
HV.IN
HV.IN
HV FILTER
TP13
IK1
TP14
IK2
Q1 2SC2785 Σ IK-ĐET
Q2 2SC2785 Σ IK-ĐET
Đ3 1SS119 Σ IK-SW
Đ4 1SS119 Σ IK-HOLĐ
Đ5 RĐ5.1ESB2 Σ IK-ZENER
Q18 2SC3675 G2-REG
TP5
C.GNĐ
NL1
R116 270k 1/4W :RN
C65 0.1 200V
R117 10k 1/4W :FPRĐ
R118 3.9M 1/2W :RC
R136 3.9M 1/2W :RC
R122 180k :RN
R121 180k :RN
R44 3k :RN
R45 3k :RN
R143 3k :RN
R47 3k :RN
R46 3k :RN
R144 3k :RN
C17 0.1 :MPS
C18 0.1 :MPS
C19 0.1 :MPS
C20 0.1 :MPS
Đ9 1SS119 HV-PROT-HOLĐ
IC2 (2/2) LM393P HV-PROT-ĐET
ABL
TP15
R43 47k :RN
R134 10 3W :RS
R135 10 3W :RS
R133 10 3W :RS
C43 0.022 630V :PT
L7 4.7μH
L8 4.7μH
TP7
TP8
TP9
R32 150k :RN
R33
R34
C13 0.22 :MPS
C54 1.5 400V :PP
HV/PROT
IC2 (1/2) LM393P HV-PROT-Đ
Đ12 RĐ5.1ESB2 HV-PROT-ZENER
Đ30 RĐ33ESB2 CLAMP
Đ27 1SS119 BIAS
R85 1k 2W :RS
R86 4.7k 3W :RS
R84 15k
R81 100k
Đ6 1SS119 PROT
Q21 2SA1358-Y ĐRIVE CONTROL
R77 3.9k 1/4W :FPRĐ
R79 15k
R83 2.7k
C57 0.1 200V :PT
C56 0.01 200V :PT
Q22 2SC2688 ĐRIVE CONTROL
Đ33 1SS119 SPEEĐ-UP
R99 10k 1/4W :FPRĐ
C55
R125 100
R126 10k
C53 330p 500V
Q20 2SK929 HV-CONV-ĐRIVE
T1


+12V
IK1
IK2
Q1 2SC2785 Σ IK-DET
Q2 2SC2785 Σ IK-DET
D3 1SS119 Σ IK-SW
D4 1SS119 Σ IK-HOLD
D5 RD5.1ESB2 Σ IK-ZENER
IC3 (2/2) LM393P Σ IK PROT
IC4 (2/2) LM393P Σ IK-PROT-BUFF
IC4 (1/2) LM393P IK-PROT-BUFF
D1 1SS119
Q3 2SC2785 BUFF
IC11 (2/2) TL082CP HV-LIMIT
D20 1SS119 COMP-SW
IC12 (1/2) LM393P COMP
Q9 2SB774 COMP-OUT-BUFF
Q10 2SB734 COMP-OUT-BUFF
D21 1SS119 PROT
CN289 3P WHT :MINI
G2
NC
DET
Q18 2SC3675 G2-REG
TP5 C.GND
NL1
CN286 6P :LARGE
GND
FBT.COOL
ABL
NC
FBT.HOT
D9 1SS119 HV-PROT-HOLD
IC2 (2/2) LM393P HV-PROT-DET
D31 1SS119 DISCHARGE
IC3 (1/2) LM393P LOW B PROT
D35 1SS119 LOW-B PROT-SW
IC11 (1/2) TL082CP HV-LIMIT
CN288 3P YEL-L :S-MICRO
GND
TP15
C12 10 LOW B PROT
D10 RD5.1FSR2 ZENER
D13 1SS119 +12V-HOLD
IC1 (2/2) TL082CP HV REG CONTROL
IC1 (1/2) TL082CP HV REG DET
HV.DET
D11 RD3.3ESB2 REG-PROT
Q11 2SC2785 REG-PROT
HV/REG
CN287 6P WHT-L :S-MICRO
HV.REG.
H.CONV.I
H.CONV.O
HV.PROT
HV/PROT
D2 RD5.1ESB2 HV-PROT-ZENER
D15 1SS119 PROT
D16 RD13ESB2 HV-REG-PROT
D14 1SS119 PROT
D8 RD13ESB2 REG-PROT
-12V
IC13 TL431CLP HV-REG-REF
D30 RD33ESB2 CLAMP
D27 1SS11 BIAS
Q21 2SA1358-Y DRIVE CONTROL
D6 1SS119 PROT
Q22 2SC2688 DRIVE CONTROL
D33 1SS119 SPEED-UP
Q20 2SK929 HV-CONV-DRIVE
T1
L1 420μH
L2 420μH
D19 ERC06-15S DUMPER
D17 ERC06-15S DUMPER
D34 ERC91-02 REG-SW
D23 ERC91-02 REG-SW
D26 ERC91-02 REG-SW
Q19 IRFIP250 HV-REG-OUT
D22 RD13ESB2 PROT
D36 RD13ESB2 PROT
L3 90μH
L4 90μH
CN290 4P :LARGE
E
B
NC
C
Q1 2SC3998-CB HV-OUT
PC
B-SS1550<U/C>-PC.
FBT11
NL11
B-SS1550<U/C>-PB
HV FILTER
NC
NC
HV.OUT
HV.IN
HV.IN
G2 (R) TO CBR BOARD CN252
G2 (E) TO CBG BOARD CN262
G2 (B) TO CBB BOARD CN272
FOCUS (R) TO CBR BOARD
FOCUS (G) TO CBG BOARD
FOCUS (B) TO CBB BOARD
K BOARD CN292



B-SS1550<U/C>-PA.

PA BOARD

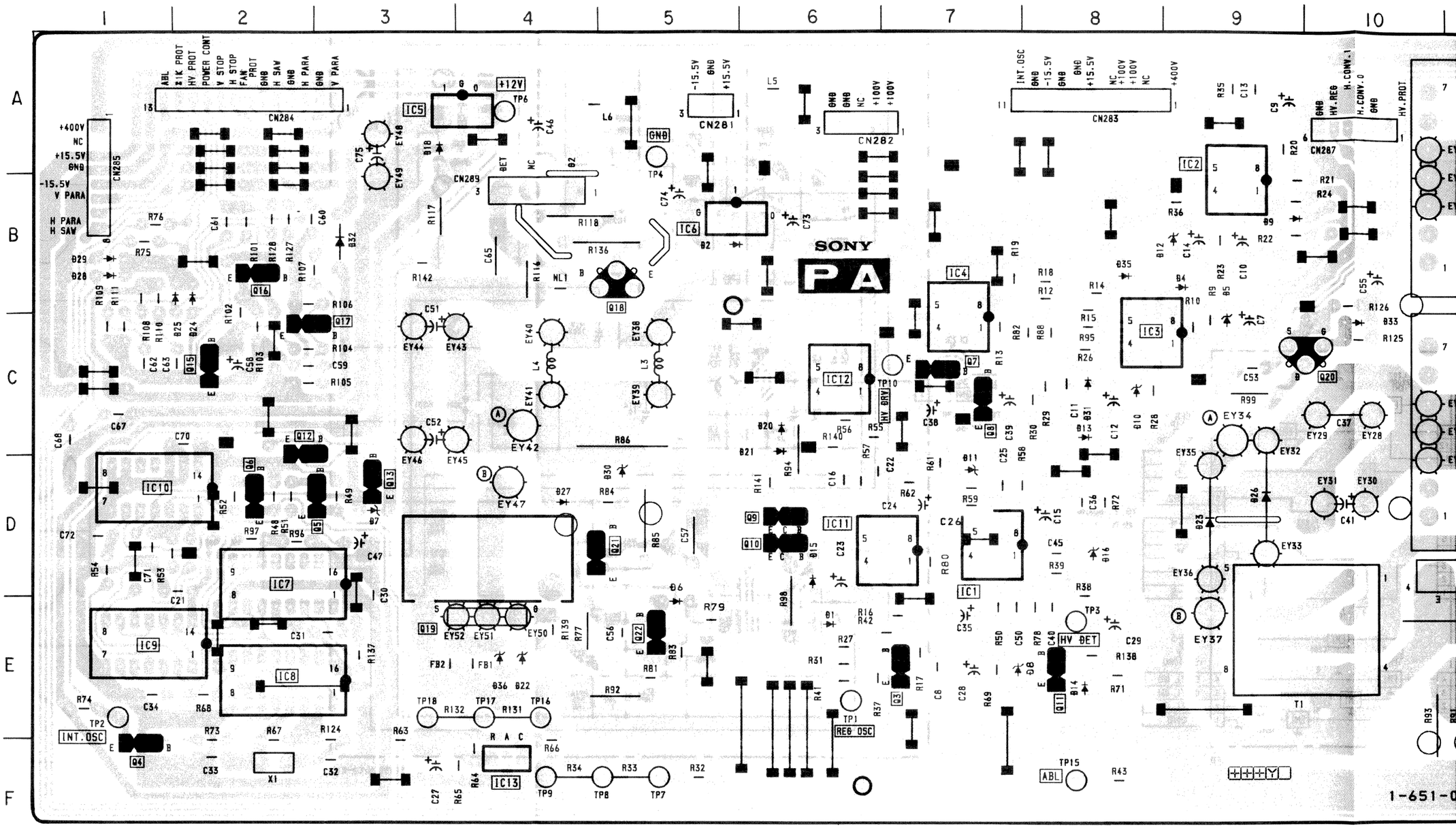


PA [HIGH VOLTAGE REG]

PA BOARD (COMPONENT SIDE)

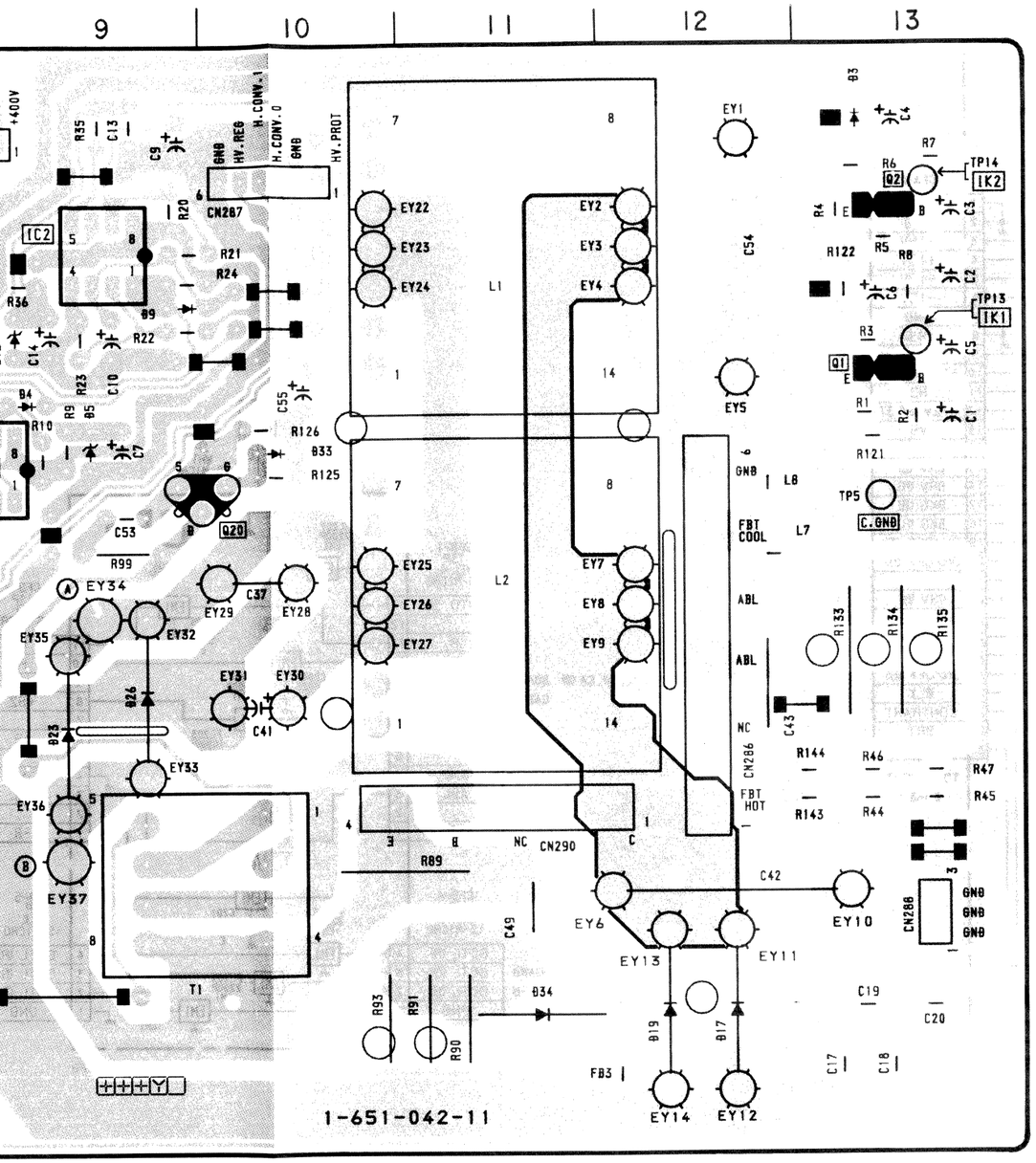
IC		DIODE	
IC1	D-7	D1	E-6
IC2	B-9	D2	B-5
IC3	C-8	D3	A-13
IC4	C-7	D4	B-9
IC5	A-4	D5	C-9
IC6	B-5	D6	E-5
IC7	D-2	D7	D-3
IC8	E-2	D8	E-7
IC9	E-1	D9	B-9
IC10	D-1	D10	C-8
IC11	D-7	D11	D-7
IC12	C-6	D12	B-9
IC13	F-4	D13	C-8
		D14	E-8
TRANSISTOR		D15	D-6
		D16	D-8
Q1	B-13	D17	E-12
Q2	A-13	D18	A-3
Q3	E-7	D19	E-12
Q4	F-7	D20	C-6
Q5	D-3	D21	C-6
Q6	D-2	D22	E-4
Q7	C-7	D23	D-9
Q8	C-7	D24	B-2
Q9	D-6	D25	B-2
Q10	D-6	D26	D-9
Q11	E-8	D27	D-4
Q12	C-2	D28	B-1
Q13	D-3	D29	B-1
Q15	C-2	D30	D-5
Q16	B-2	D31	C-8
Q17	C-3	D32	B-3
Q18	B-5	D33	C-10
Q19	E-4	D34	E-11
Q20	C-10	D35	B-8
Q21	D-5	D36	E-4
Q22	E-5		

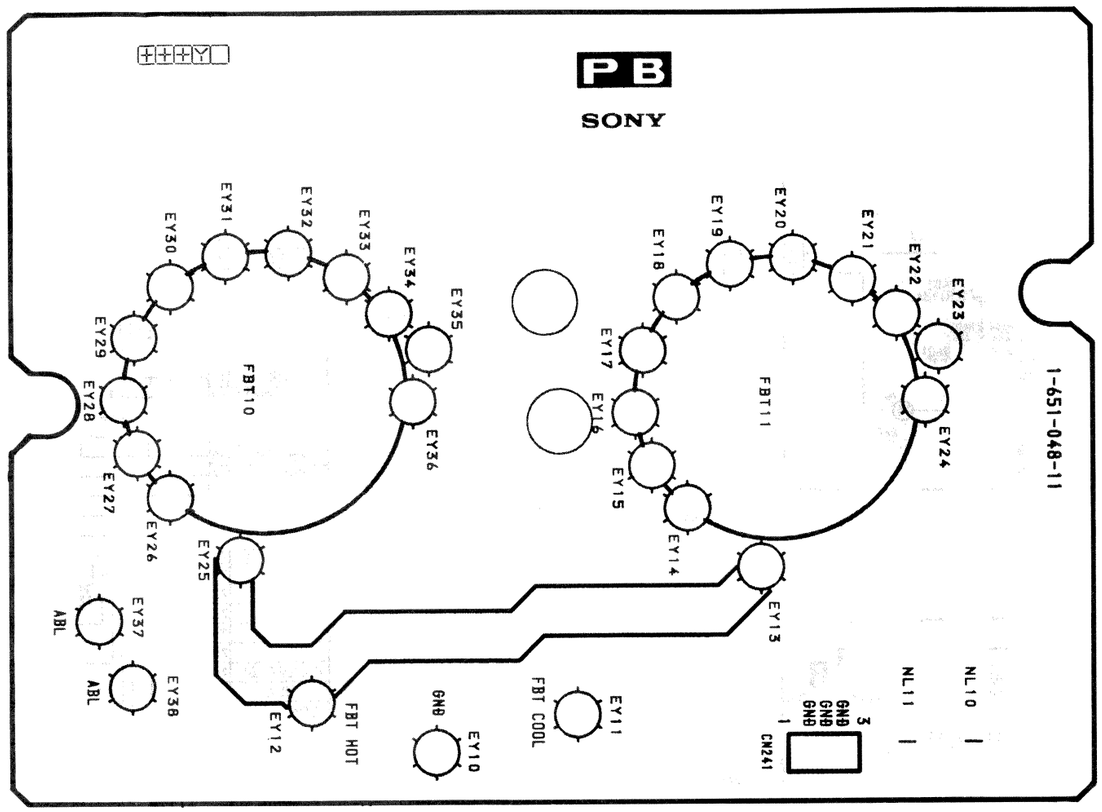
– PA BOARD –



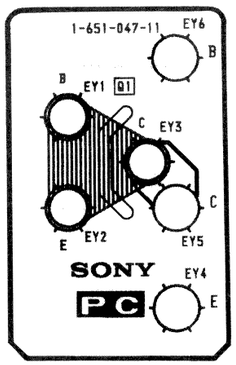
PB [FBT] **PC**

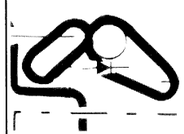
– PB BOARD –



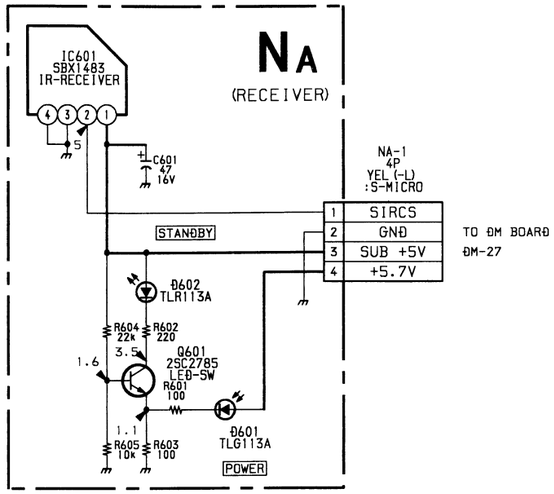


– PC BOARD –

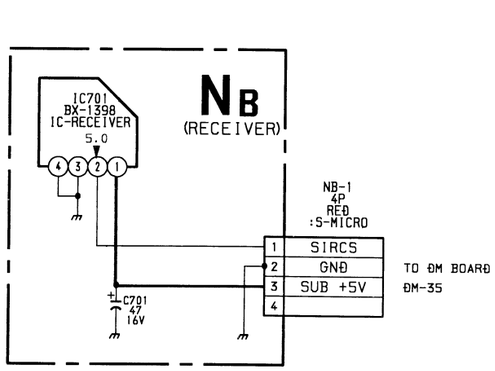




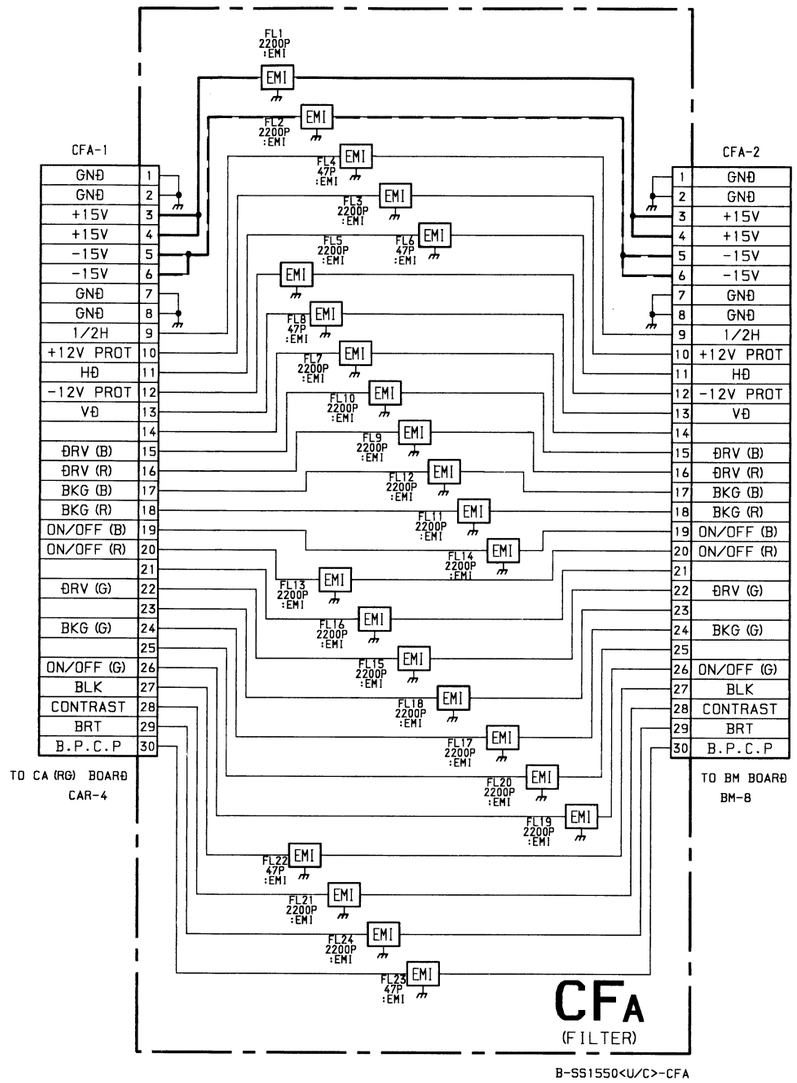
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



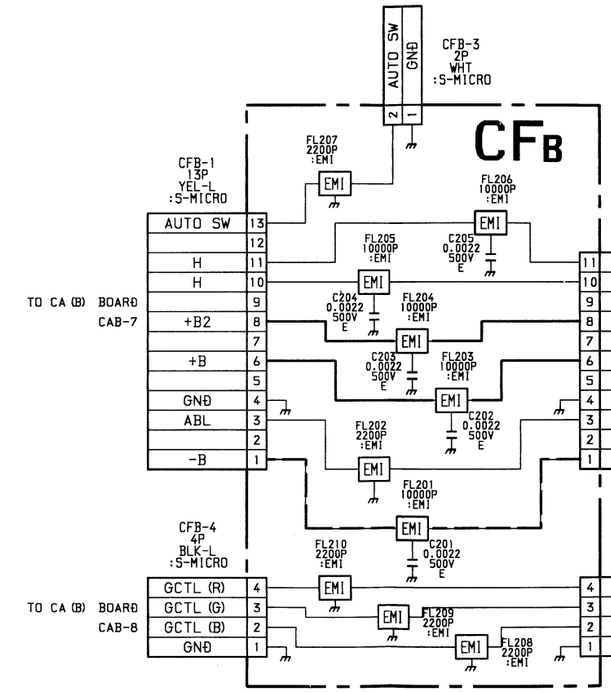
B-SS1550<U/C>-NA.



B-SS1550<U/C>-NB.

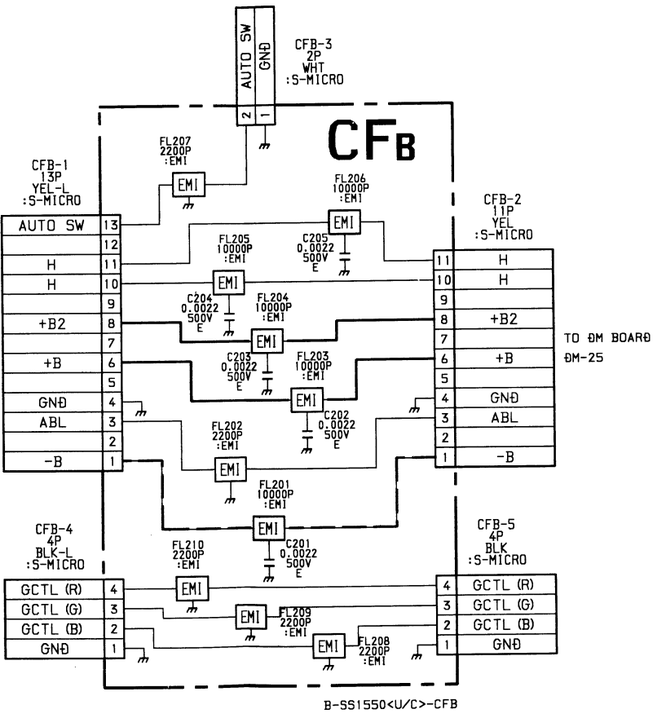


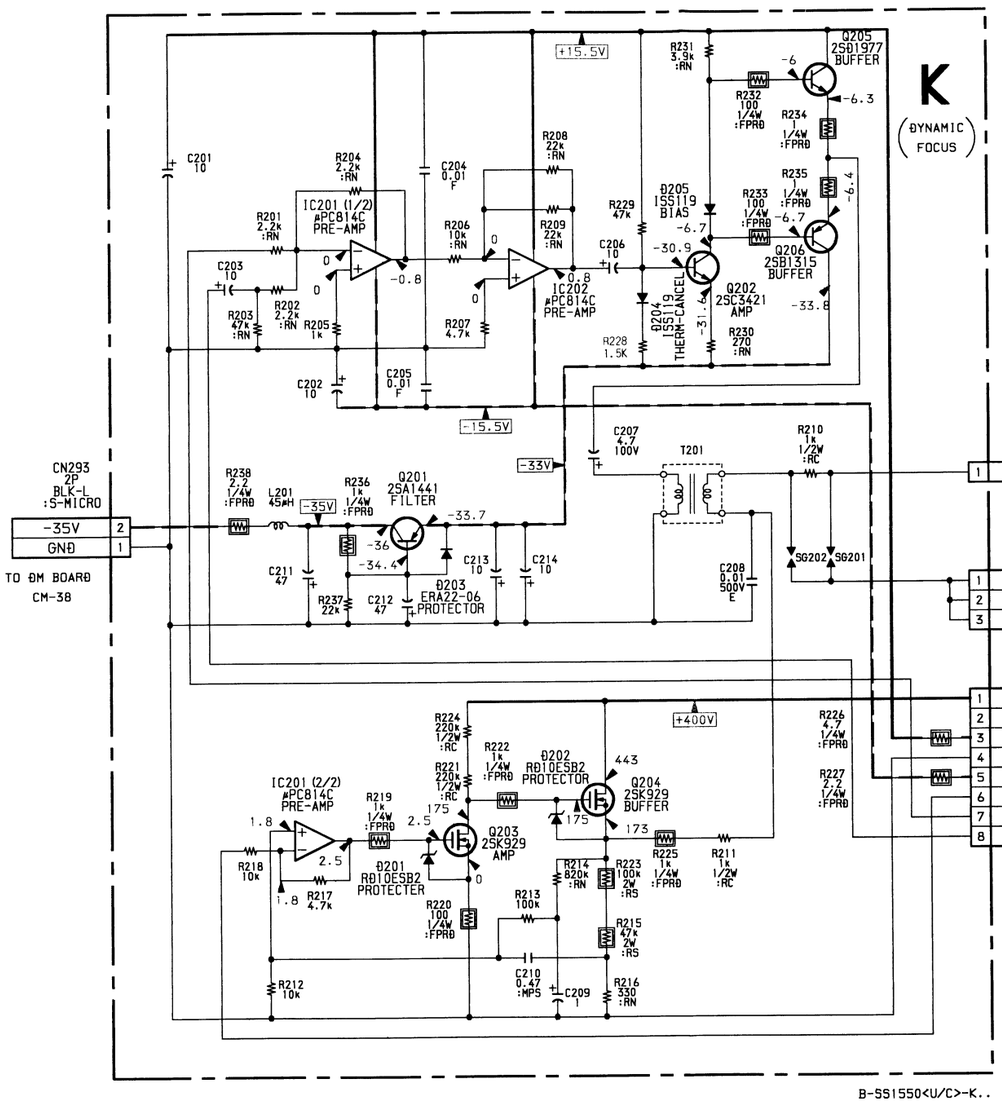
B-SS1550<U/C>-CFA



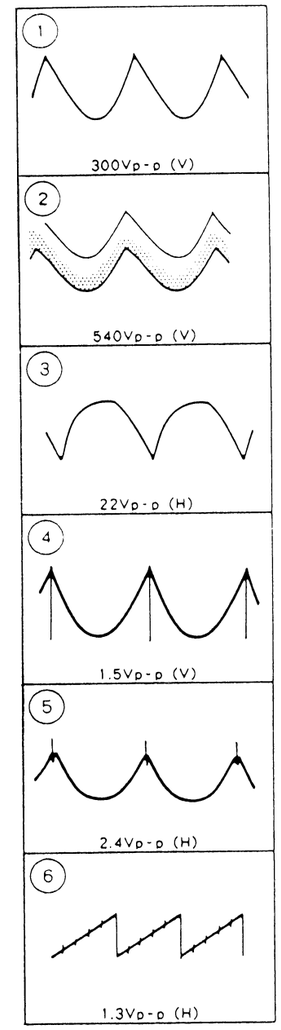
B-SS1550<U/C>-CFB

14 15 16 17 18 19 20 21 22 23 24 25 26 27



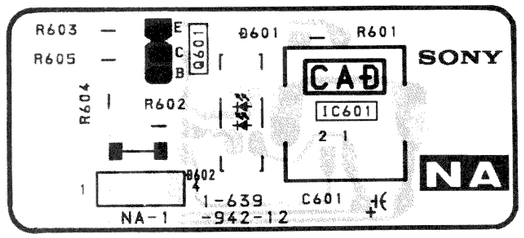


K BOARD

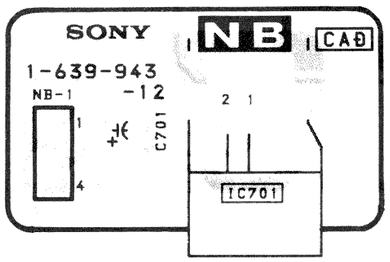


NA NB [RECEIVER]

– NA BOARD –

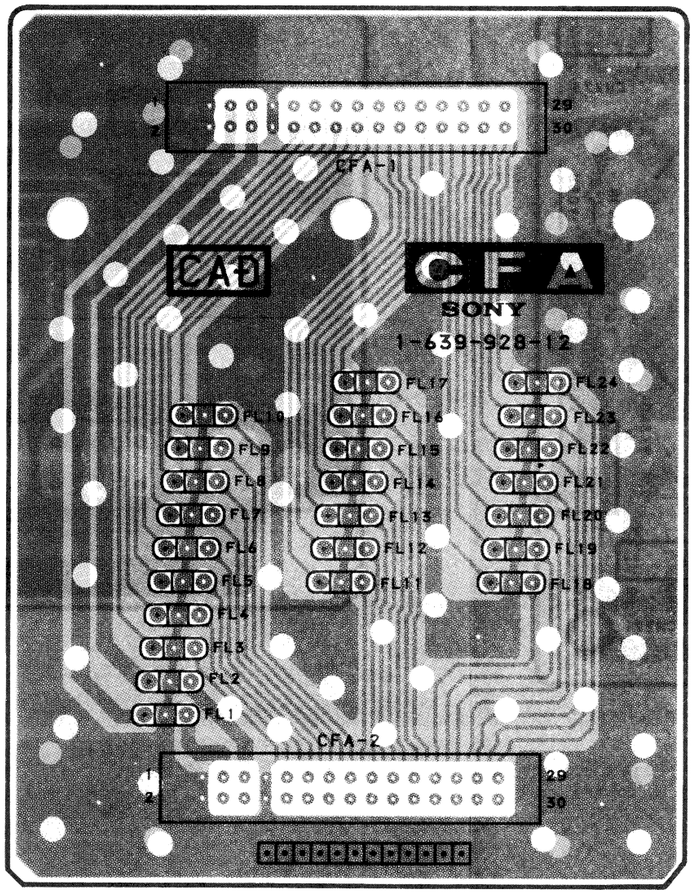


– NB BOARD –

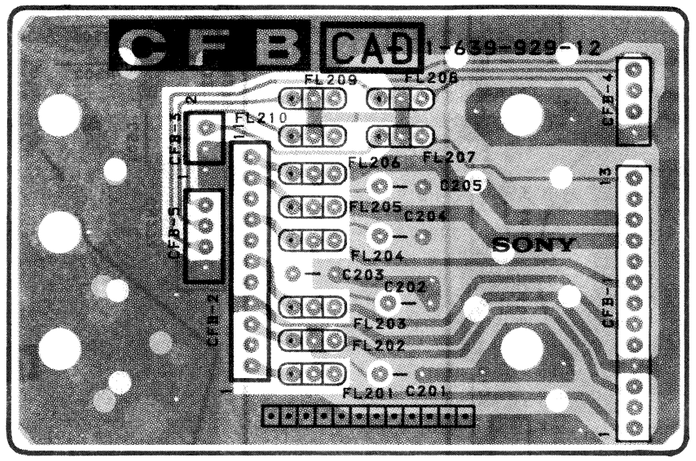


CFA CFB [FILTER]

– CFA BOARD –



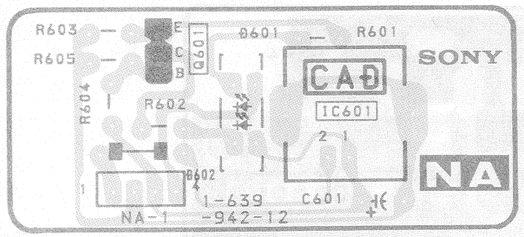
– CFB BOARD –



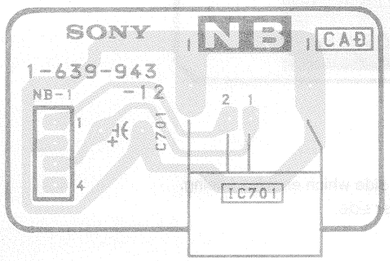
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

NA NB [RECEIVER]

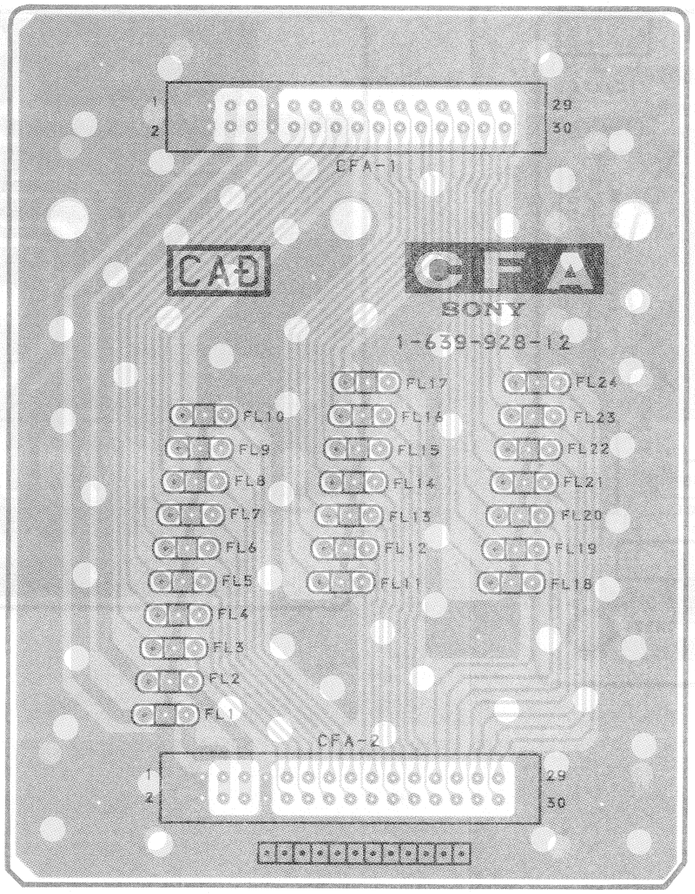
– NA BOARD –



– NB BOARD –

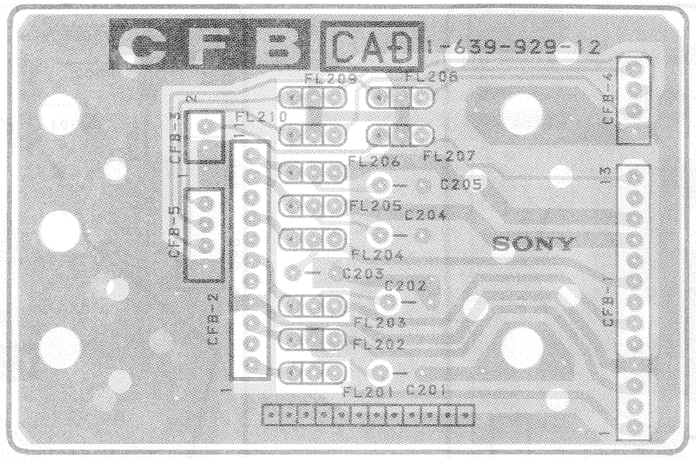


– CFA BOARD –



CFA CFB [FILTER]

– CFB BOARD –

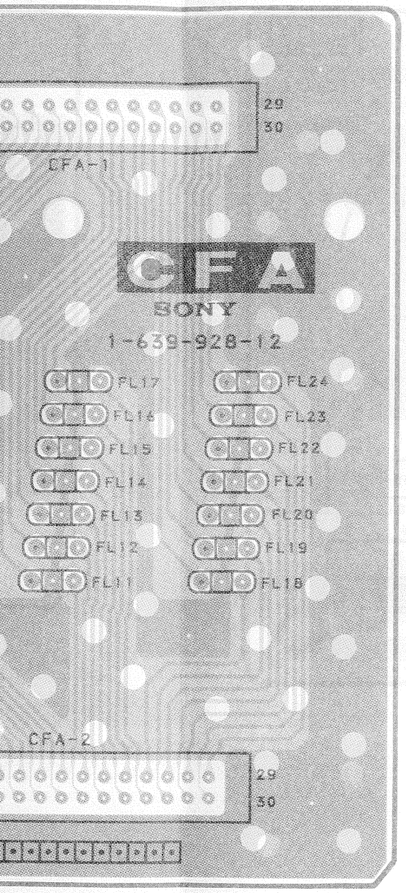


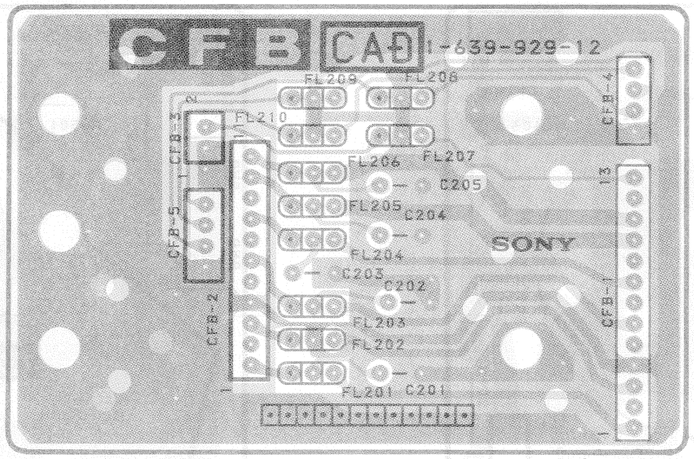
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

VPH-1272QM/Q
RM-1271

CFA CFB [FILTER]

– CFB BOARD –

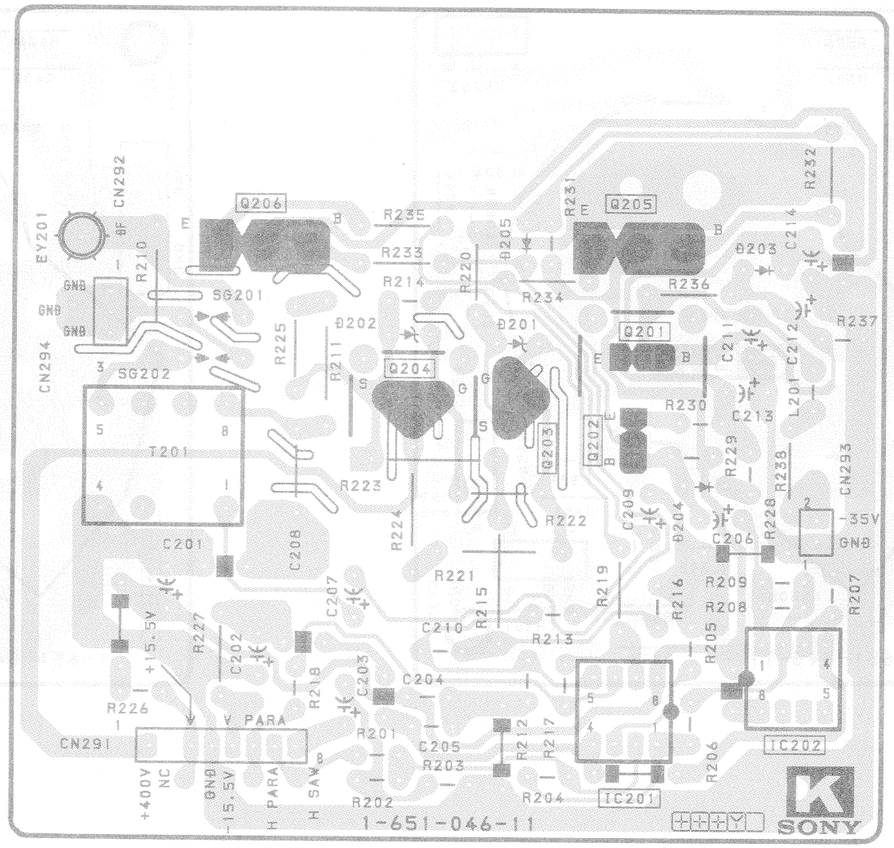




• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

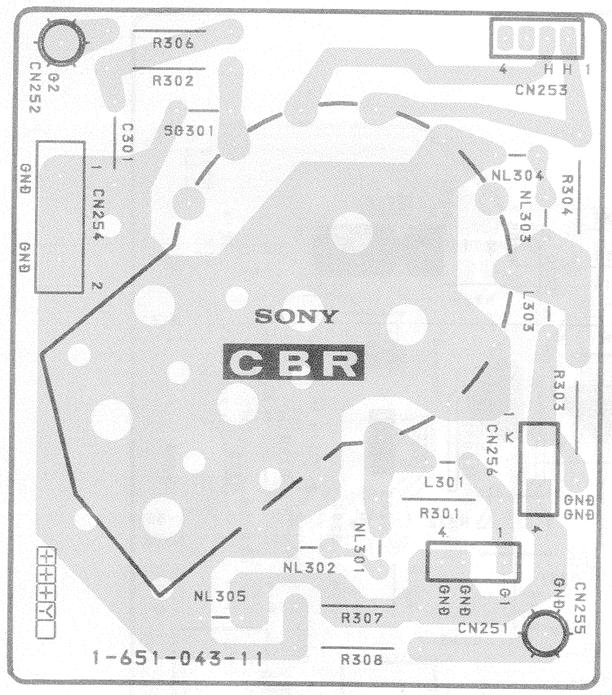
K [DYNAMIC FOCUS]

– K BOARD –

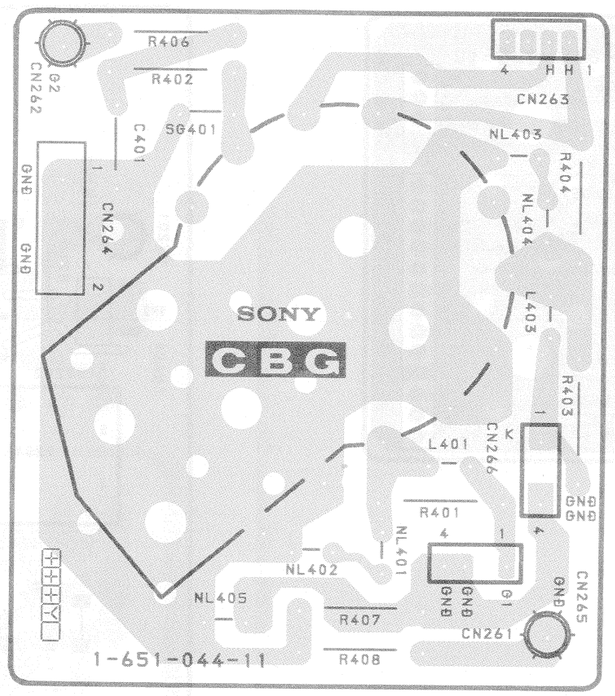


CBR CBG CBB [CRT SOCKET]

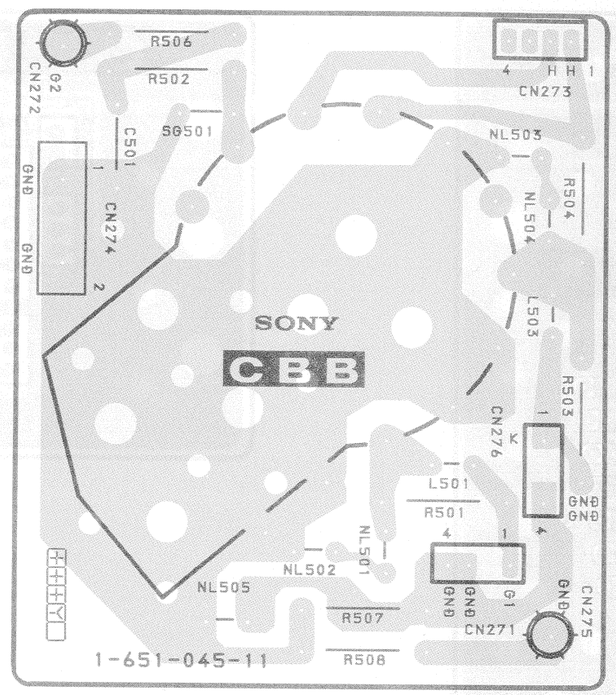
– CBR BOARD –



– CBG BOARD –

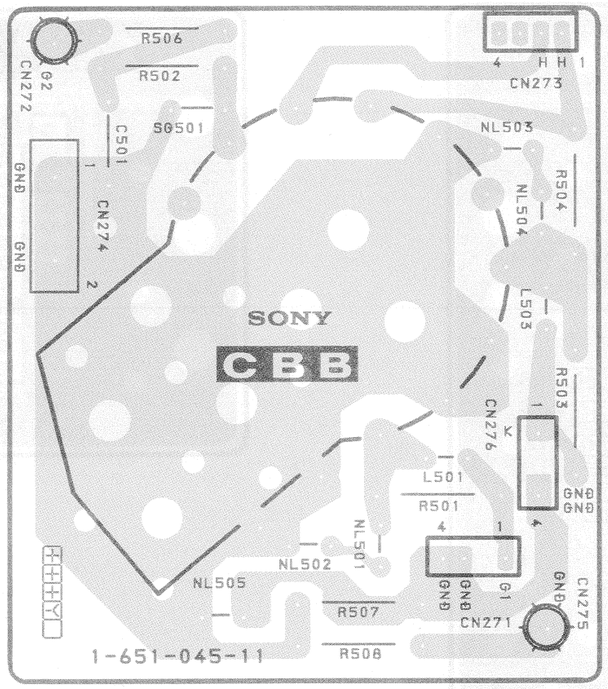


– CBB BOARD –

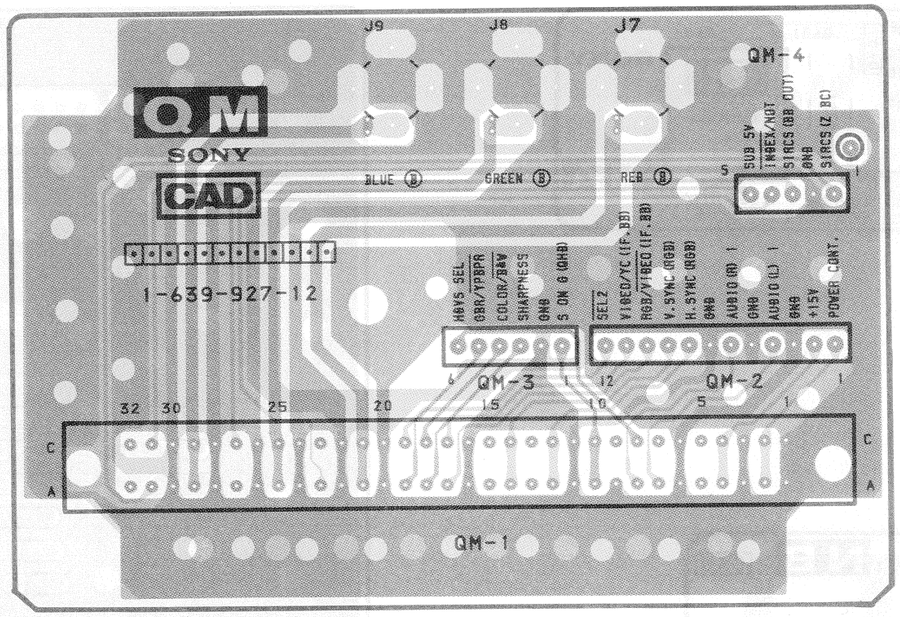


QM [MOTHER BOARD]

– CBB BOARD –

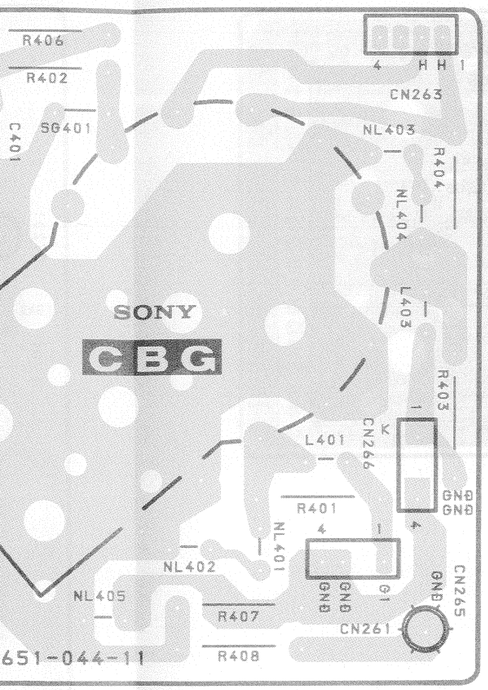


– QM BOARD –



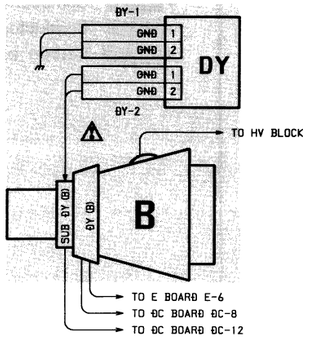
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

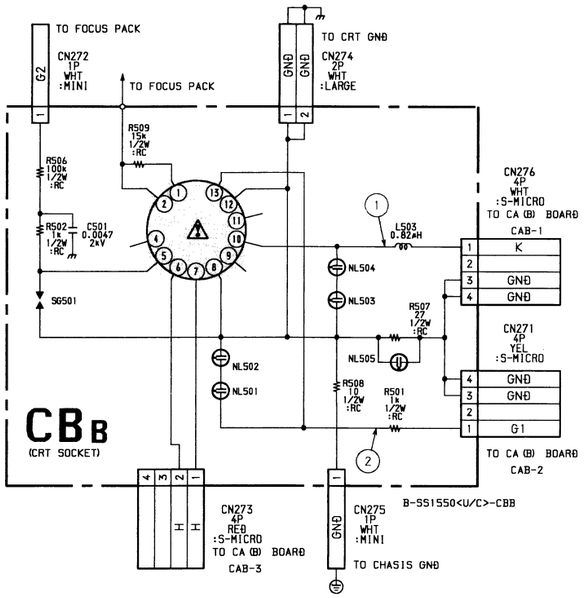
– CBR BOARD –

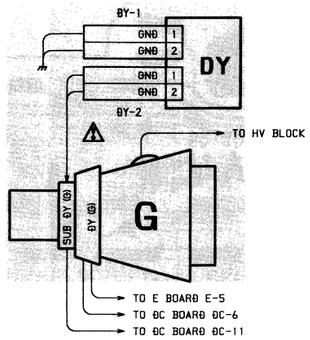


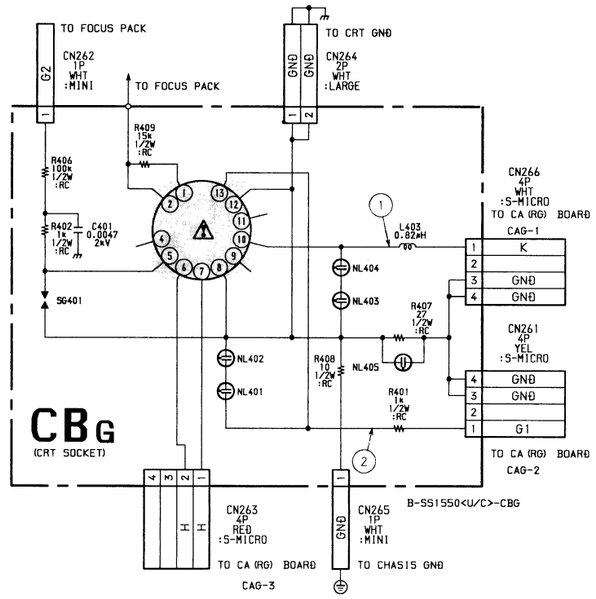
CBR BOARD **CBG BOARD** **CBB BOARD**

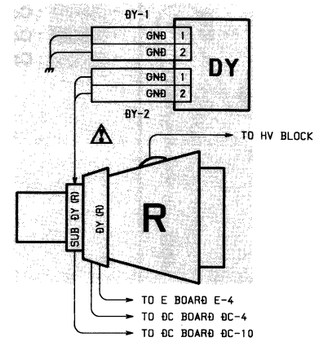
1	1	1
90Vp-p (H)	90Vp-p (H)	150Vp-p (H)
2	2	2
20Vp-p (H)	20Vp-p (H)	20Vp-p (H)

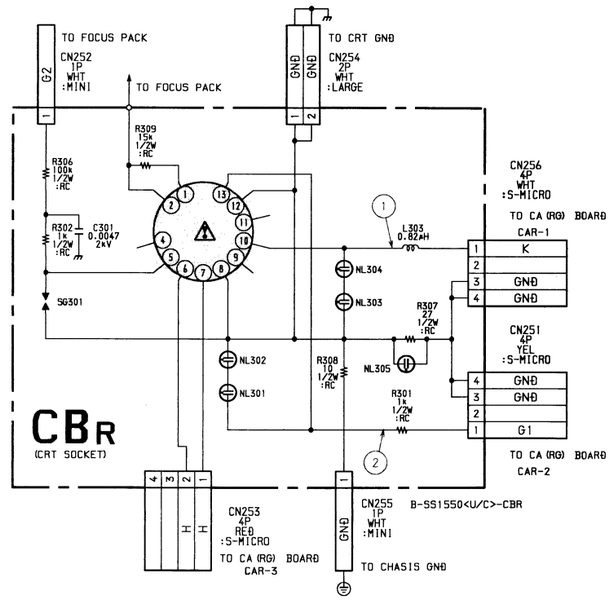

DY
GND
GND
GND
GND
BY-1
BY-2
TO HV BLOCK
SUB BY (B)
BY (B)
B
TO E BOARD E-6
TO DC BOARD DC-8
TO DC BOARD DC-12


TO FOCUS PACK
CN272
1P
WHT
:MINI
G2
TO FOCUS PACK
TO CRT GND
CN274
2P
WHT
:LARGE
GND
GND
R509
15k
1/2W
:RC
R506
100k
1/2W
:RC
R502
1k
1/2W
:RC
C501
0.0047
2kV
SG501
L503
0.82μH
NL504
NL503
NL502
NL501
R507
27
1/2W
:RC
NL505
R508
10
1/2W
:RC
R501
1k
1/2W
:RC
CN276
4P
WHT
:S-MICRO
TO CA (B) BOARD
CAB-1
K
GND
GND
CN271
4P
YEL
:S-MICRO
GND
GND
G1
TO CA (B) BOARD
CAB-2
CBB
(CRT SOCKET)
CN273
4P
RED
:S-MICRO
TO CA (B) BOARD
CAB-3
CN275
1P
WHT
:MINI
GND
TO CHASIS GND
B-SS1550<U/C>-CBB


DY
GND
GND
GND
GND
BY-1
BY-2
TO HV BLOCK
SUB BY (G)
BY (G)
G
TO E BOARD E-5
TO DC BOARD DC-6
TO DC BOARD DC-11

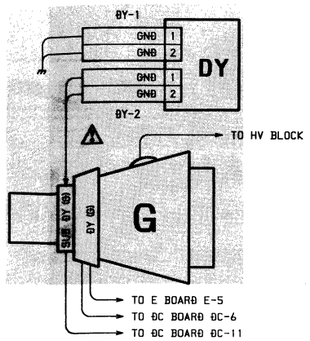

TO FOCUS PACK
CN262
1P
WHT
:MINI
G2
TO FOCUS PACK
TO CRT GND
CN264
2P
WHT
:LARGE
GND
GND
R409
15k
1/2W
:RC
R406
100k
1/2W
:RC
R402
1k
1/2W
:RC
C401
0.0047
2kV
SG401
L403
0.82μH
NL404
NL403
NL402
NL401
R407
27
1/2W
:RC
R408
10
1/2W
:RC
R401
1k
1/2W
:RC
NL405
CN266
4P
WHT
:S-MICRO
TO CA (RG) BOARD
CAG-1
K
GND
GND
CN261
4P
YEL
:S-MICRO
GND
GND
G1
TO CA (RG) BOARD
CAG-2
CBG
(CRT SOCKET)
CN263
4P
RED
:S-MICRO
TO CA (RG) BOARD
CAG-3
CN265
1P
WHT
:MINI
GND
TO CHASIS GND
B-SS1550<U/C>-CBG

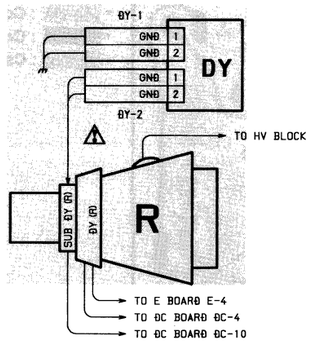

DY
GND
GND
GND
GND
BY-1
BY-2
TO HV BLOCK
SUB BY (R)
BY (R)
R
TO E BOARD E-4
TO DC BOARD DC-4
TO DC BOARD DC-10

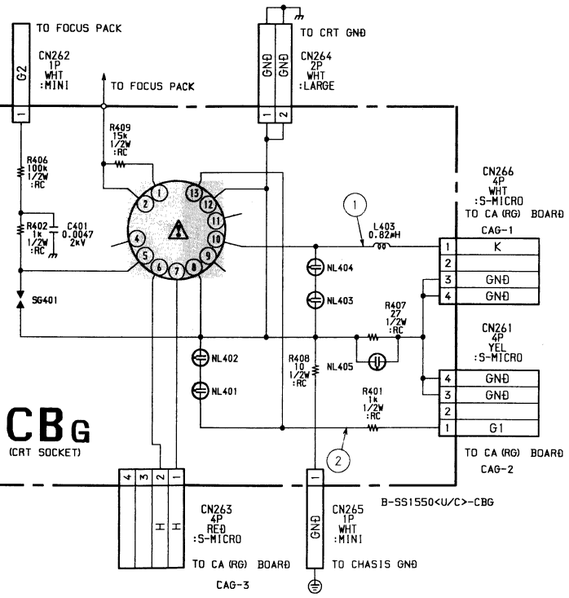

TO FOCUS PACK
CN252
1P
WHT
:MINI
G2
TO FOCUS PACK
TO CRT GND
CN254
2P
WHT
:LARGE
GND
GND
R309
15k
1/2W
:RC
R306
100k
1/2W
:RC
R302
1k
1/2W
:RC
C301
0.0047
2kV
SG301
L303
0.82μH
NL304
NL303
NL302
NL301
R307
27
1/2W
:RC
R308
10
1/2W
:RC
R301
1k
1/2W
:RC
NL305
CN256
4P
WHT
:S-MICRO
TO CA (RG) BOARD
CAR-1
K
GND
GND
CN251
4P
YEL
:S-MICRO
GND
GND
G1
TO CA (RG) BOARD
CAR-2
CBR
(CRT SOCKET)
CN253
4P
RED
:S-MICRO
TO CA (RG) BOARD
CAR-3
CN255
1P
WHT
:MINI
GND
TO CHASIS GND
B-SS1550<U/C>-CBR

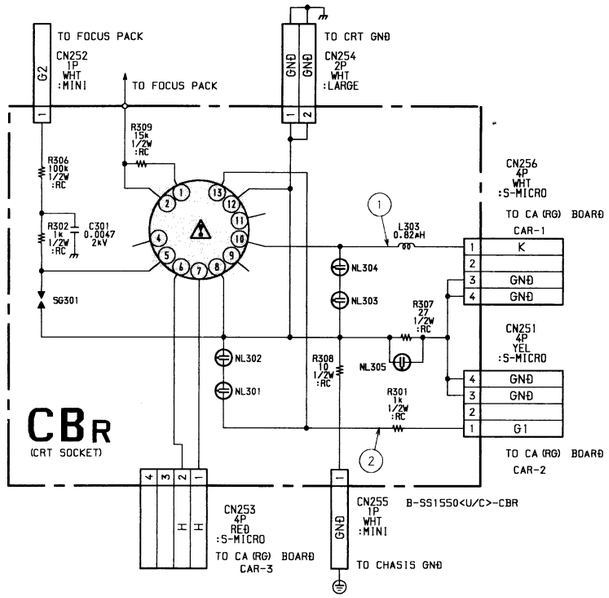
Schem
CB

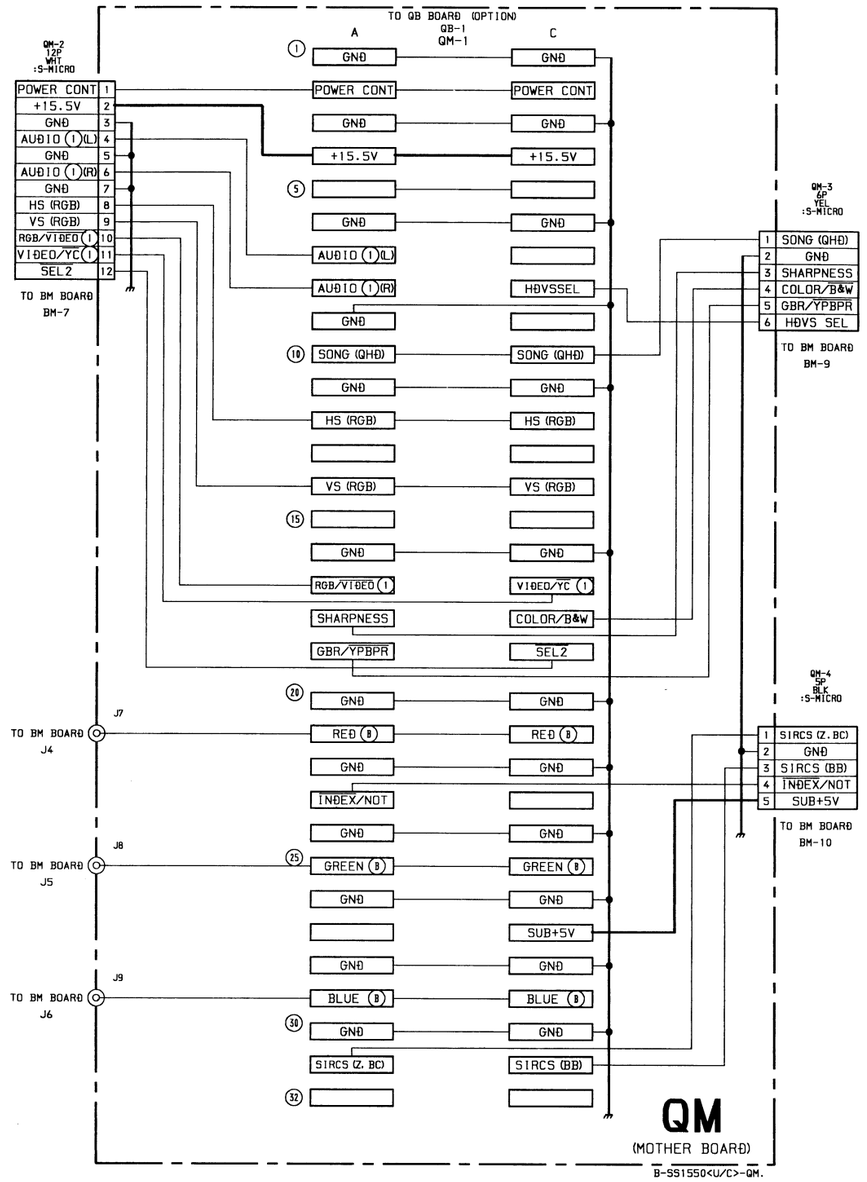
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22







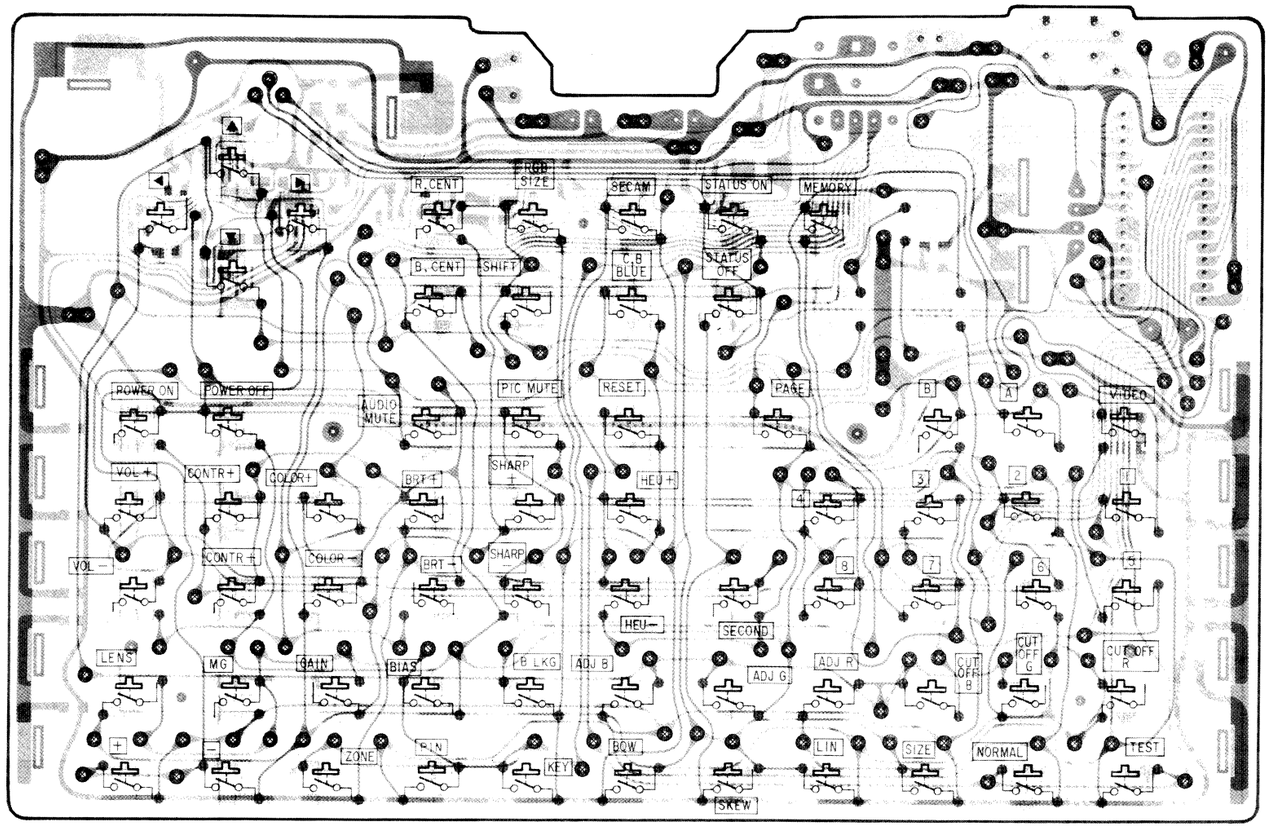




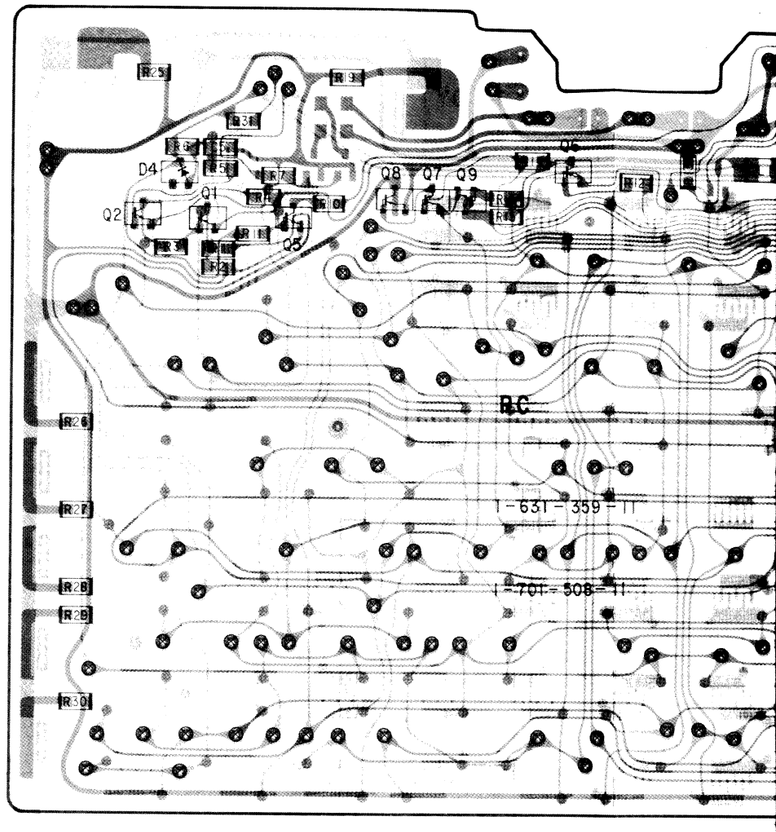
VPH-1272QM/Q
RM-1271

RC RCA RCB RCC RCD [CONTROL PANEL]

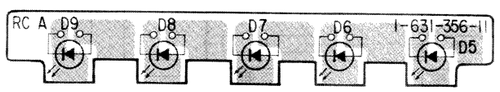
– RC BOARD –



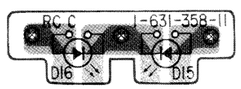
• : Conductor side.
• : Compoent side.
• : Carbon pattern side.



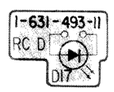
– RCA BOARD –



– RCC BOARD –

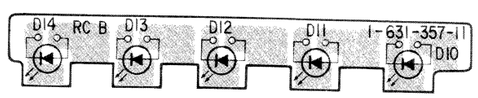


– RCD BOARD –

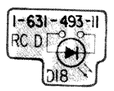


• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

– RCB BOARD –

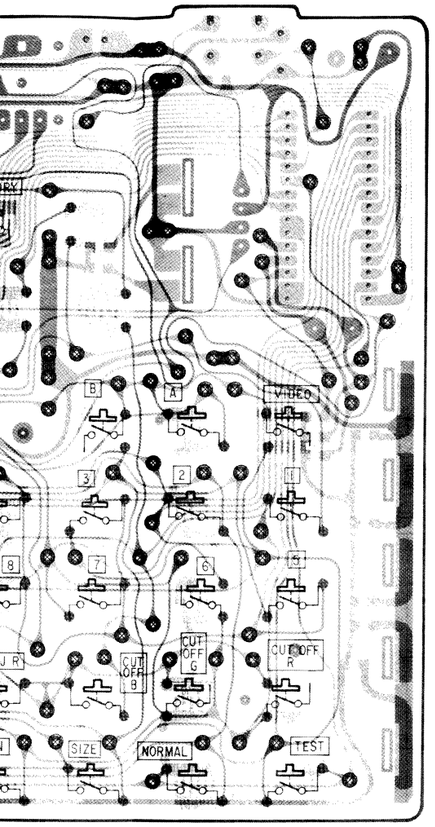


– RCD BOARD –

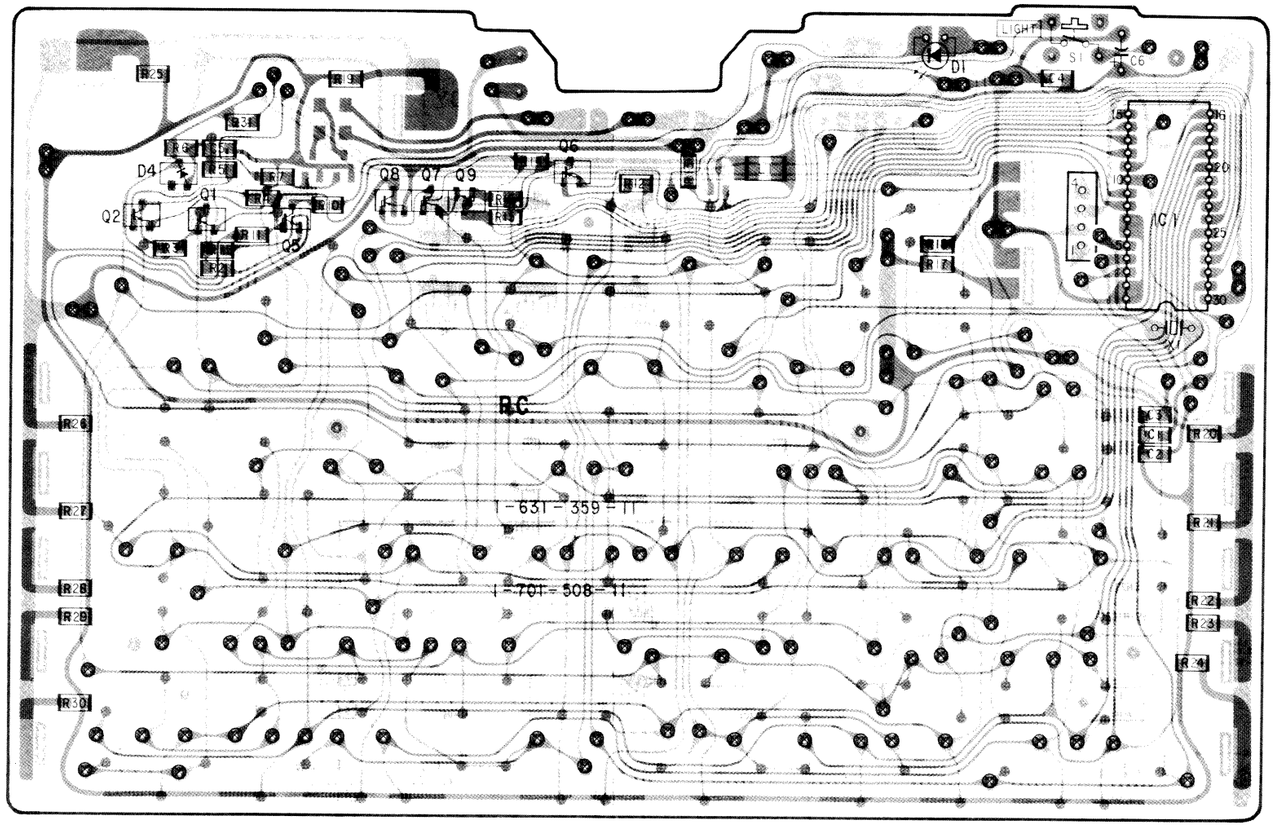


RCD

[CONTROL PANEL]

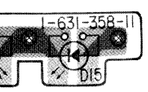


• : Conductor side.
• : Compoent side.
• : Carbon pattern side.



• : Compoent side.
• : Conductor side.
• : Carbon pattern side.

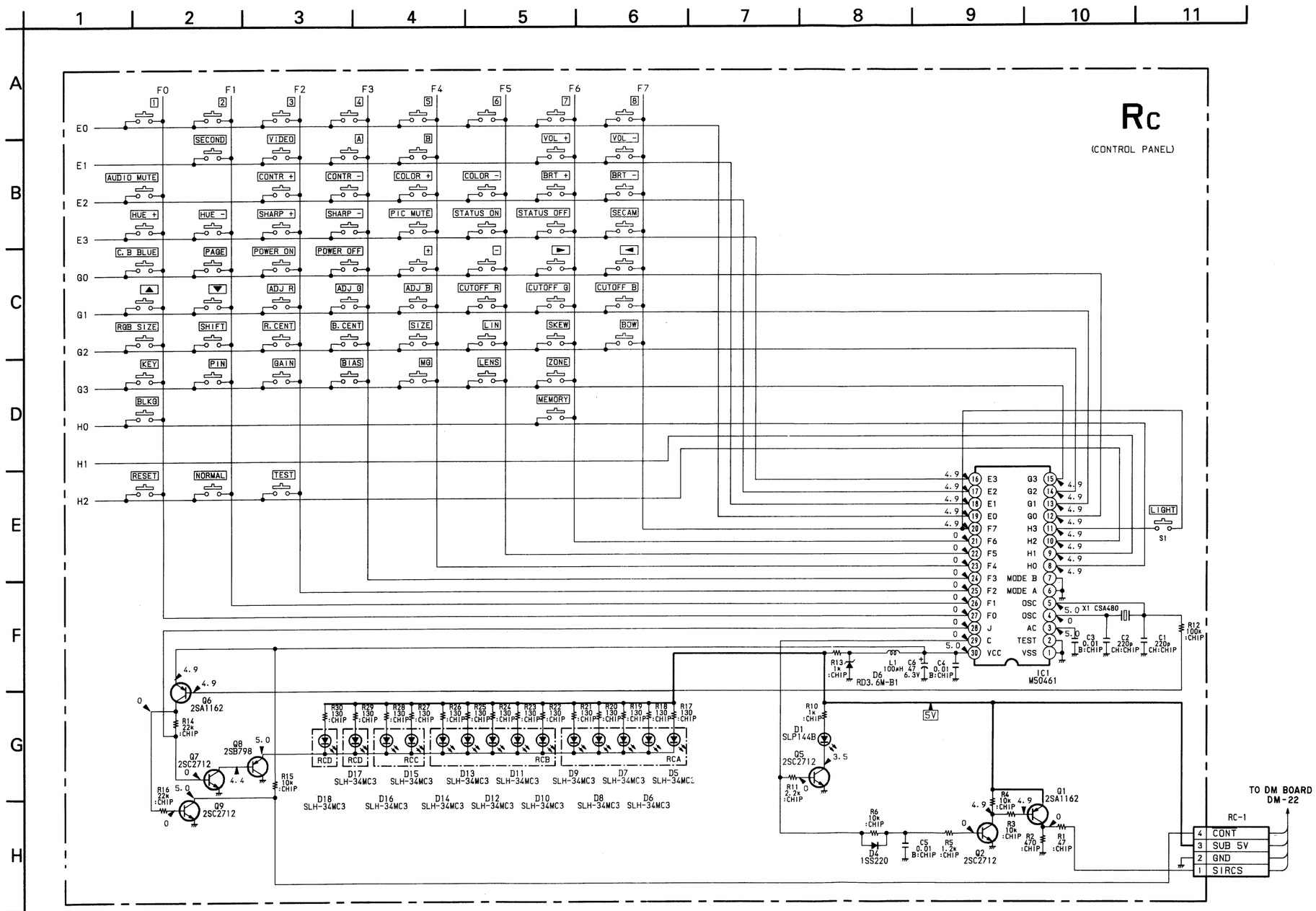
– BOARD –



– RCD BOARD –

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

– RCD BOARD –



RC	IC1	M50461-157SP	SIRCS ENCODER
	Q1	2SA1162	SIRCS BUFF2
	2	2SC2712	SIRCS BUFF1
	5	2SC2712	INDICATOR DRIVE
	6	2SA1162	LED SW1
	7	2SC2712	LED DRIVE 1
	8	2SB798	LED DRIVE 2
	9	2SC2712	LED SW2
	D1	SLP144B	INDICATOR
	4	1SS220	
	6	RD3.6M-B1	VCC CONT

RCA	D5	SLH-34MC3	LIGHT
	6	SLH-34MC3	LIGHT
	7	SLH-34MC3	LIGHT
	8	SLH-34MC3	LIGHT
	9	SLH-34MC3	LIGHT

RCB	D10	SLH-34MC3	LIGHT
	11	SLH-34MC3	LIGHT
	12	SLH-34MC3	LIGHT
	13	SLH-34MC3	LIGHT
	14	SLH-34MC3	LIGHT

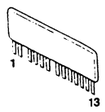
RCC	D15	SLH-34MC3	LIGHT
	16	SLH-34MC3	LIGHT

RCD	D1	SLH-34MC3	LIGHT

2-5. SEMICONDUCTORS

BX1398

BX-6473



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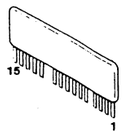
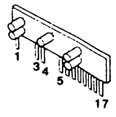


BX-6475

BX7913



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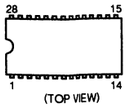
μPD28C64ACZ-15



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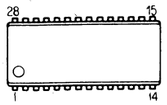

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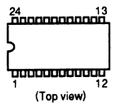

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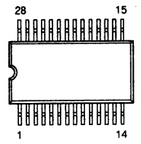

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LA7016

CX7916
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LM6364N
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TL082CP
μPC393C
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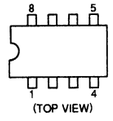
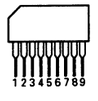


CX-894



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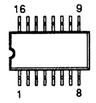
MC14053BF
MC74HC157AF
SN74HC138ANS
SN74HC157ANS
TC74HC123AF



HD14538BP
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MC14040BCP
MC14495P1
MC14572UBCP
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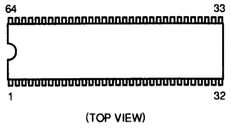
HD64180R1P8



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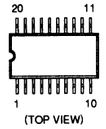

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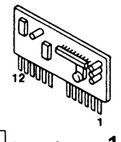

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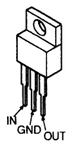

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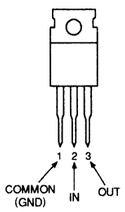

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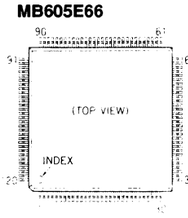

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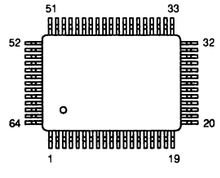

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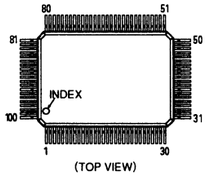

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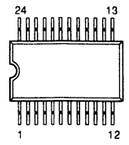

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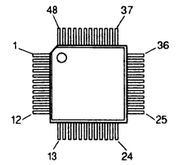

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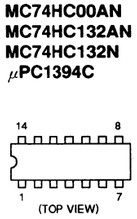

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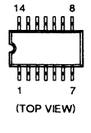

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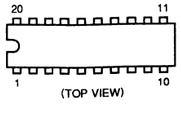

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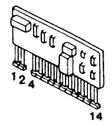

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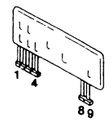

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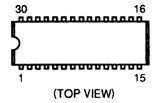

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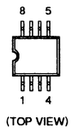

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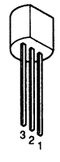

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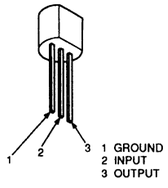

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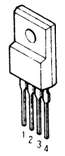
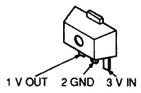


1 : V IN 3 : GND
2 : V OUT 4 : ON/OFF CONTROL

RH5VA43AA



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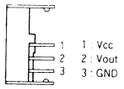

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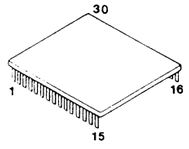

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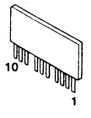

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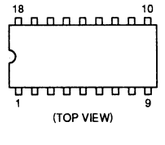

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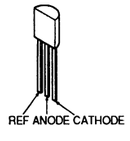
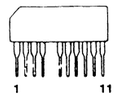
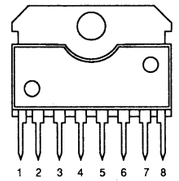


TY885002A

TY911504



μPC1241H



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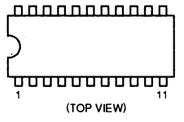

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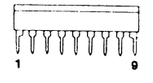
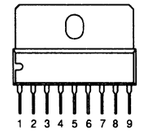
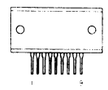


μPC1498H



VPH06



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DTC144ES
XDA144ES
XDC114ES
XDC144ES

DTC144EK
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2SA1162-YG
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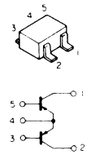
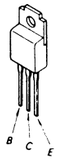
2SA812
2SC1623-L5L6
2SC2712-YG
2SC2859-Y
2SC3545

FMS1
FMS2



FMW-8
FMW1
FMW2
FMW5



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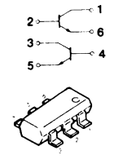

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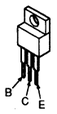

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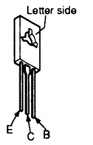
2SA1407-D
2SC2688-LK



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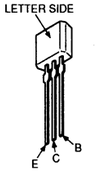

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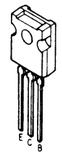
2SD789-34
2SD789-4

2SA1358-Y
2SC3421-Y



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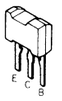
2SC1428-Y
2SC3668-O



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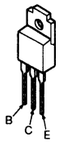

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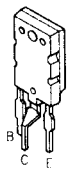
2SD774-34

2SB798-DL

2SC2551-O

Schematic diagrams

2SC3998



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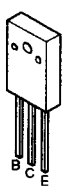
2SC4054N



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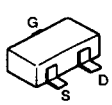
2SK160-K6



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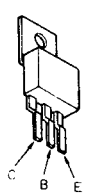

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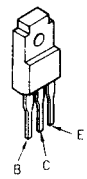

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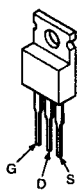

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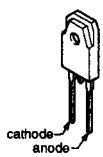

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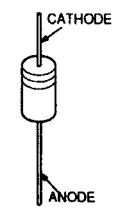
RD13ES-B2
RD15ES-B2
RD2.0ES-B2
RD20ES-B2
RD33ES-B2
RD3.3ES-B2
RD39ES-B
RD39ES-B2
RD5.1ES-B2
RD6.8ES-B2
1SS119



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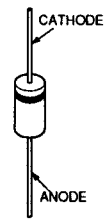

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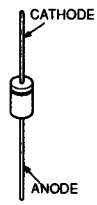
RU-1C



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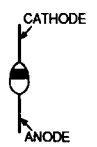
V06C
V09G
V11N
V19EF1



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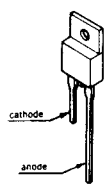

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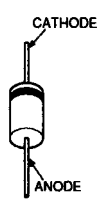

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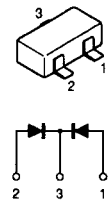

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RD13M-B2
RD2.4M-B
RD3.3M-B2
RD3.6M-B1
RD4.3M-B1
RD5.1M-B2
RD6.2M-B1
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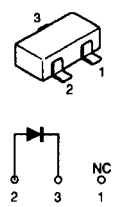
1SS193
1SS220



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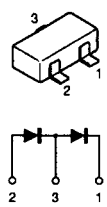

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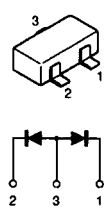

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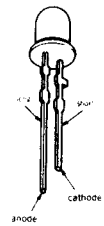

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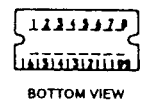

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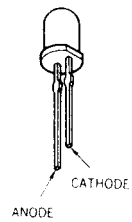

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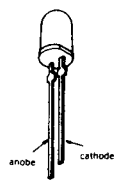

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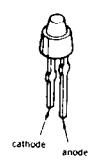

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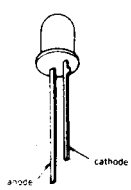

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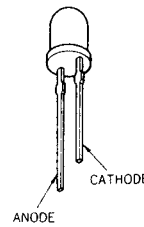

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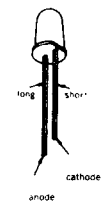

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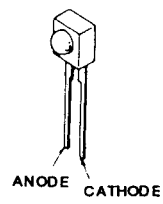


SECTION 3
EXPLODED VIEWS

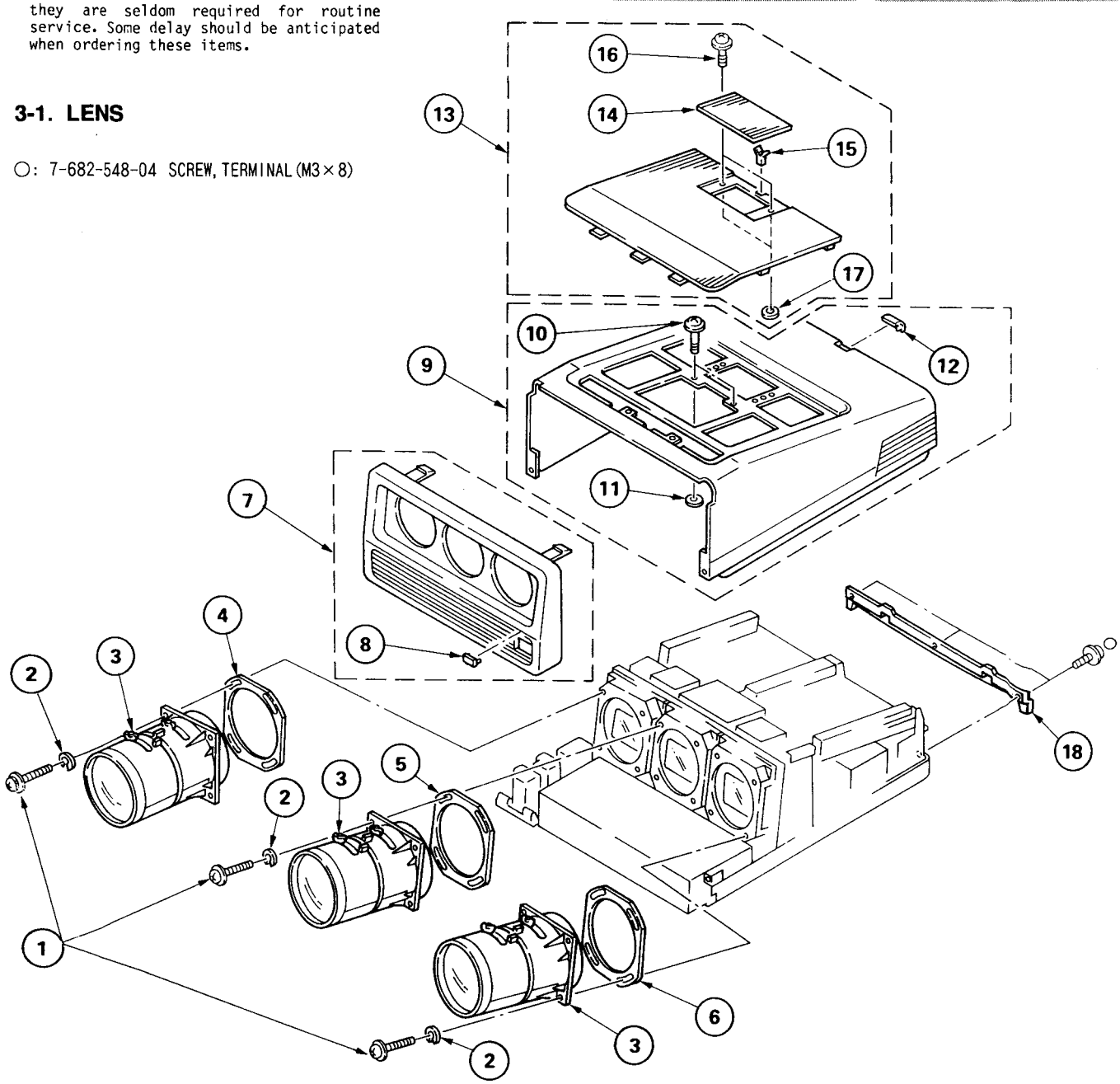
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

3-1. LENS

○: 7-682-548-04 SCREW, TERMINAL (M3×8)



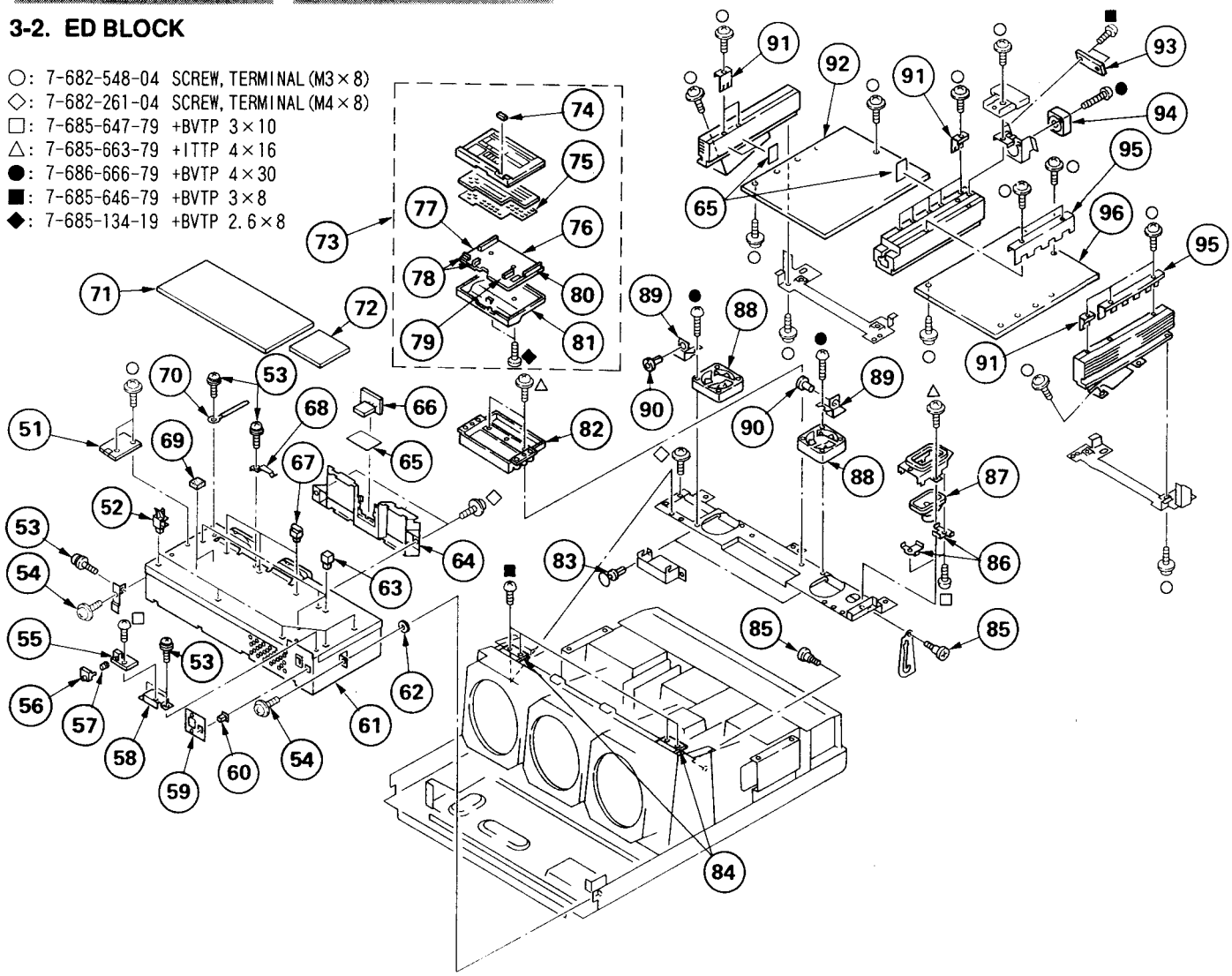
REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-034-126-01	SCREW (C)	
2	4-034-117-01	WASHER, SUPPORT	
3	4-034-141-03	LENS (PT-65)	
4	4-034-143-01	SPACER (B), LENS	
5	4-034-144-01	SPACER (G), LENS	
6	4-034-142-01	SPACER (R), LENS	
7	X-4395-512-4	PANEL ASSY, FRONT	8
8	4-395-534-02	FILTER	
9	X-4031-599-1	HOOD ASSY (VPH-1272Q ONLY)	10~12
	X-4031-623-1	HOOD ASSY (VPH-1272QM ONLY)	10~12
10	4-033-711-01	SCREW (+PWH M4X20), PREVENTION	
11	4-033-712-01	WASHER	
12	4-395-536-01	PLATE, INDICATE	
13	X-4031-601-1	PLATE, TOP	14~17
14	4-395-596-01	DOOR, CONTROL PANEL	
15	4-392-036-01	CATCHER, PUSH	
16	4-033-713-01	SCREW (+PWH M4X10), PREVENTION	
17	4-033-712-01	WASHER	
18	4-395-595-01	HOLDER, CONNECTOR PANEL	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

3-2. ED BLOCK

○: 7-682-548-04 SCREW, TERMINAL (M3×8)
◇: 7-682-261-04 SCREW, TERMINAL (M4×8)
□: 7-685-647-79 +BVTP 3×10
△: 7-685-663-79 +ITTP 4×16
●: 7-686-666-79 +BVTP 4×30
■: 7-685-646-79 +BVTP 3×8
◆: 7-685-134-19 +BVTP 2.6×8



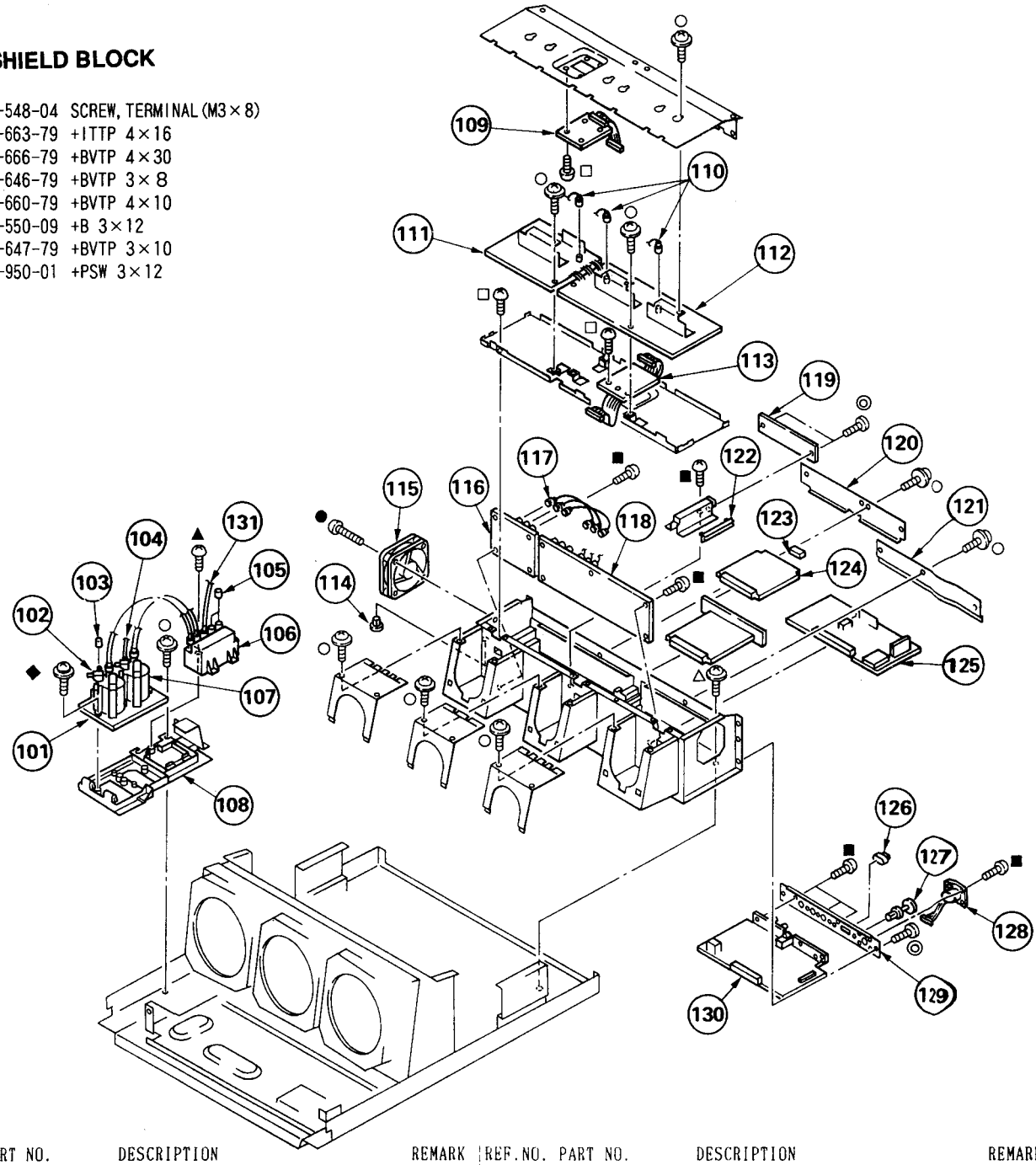
REF.NO.	PART NO.	DESCRIPTION	REMARK
51	*4-034-125-01	STOPPER (B), PLATE	
52	*3-703-141-00	HOLDER, PCB	
53	4-382-854-01	SCREW (M3X8), P, SW (+)	
54	4-033-713-01	SCREW (+PWH M4X10), PREVENTION	
55	*A-1390-256-A	NB BOARD, COMPLETE	
56	*4-381-686-01	BRACKET (B), BAR, OPTICAL	
57	*4-374-987-01	GUIDE, LIGHT	
58	*4-043-145-01	HOLDER, NB	
59	*4-042-969-01	PLATE, POWER	
60	4-362-811-00	BUTTON, MAIN POWER	
61	⚠ 1-413-934-11	REGULATOR, SWITCHING (SOPS-1047) (VPH-1272Q ONLY)	
	⚠ 1-413-935-11	REGULATOR, SWITCHING (SOPS-1074) (VPH-1272QM ONLY)	
62	4-033-712-01	WASHER	
63	*3-701-903-00	HOLDER, PC BOARD	
64	*4-042-902-01	DUCT, FAN	
65	4-393-406-01	SHEET (R), RADIATION	
66	*A-1190-196-A	PC BOARD, COMPLETE	
67	*3-659-682-00	HOLDER, PC BOARD	
68	*4-363-404-00	HOLDER, IC	
69	*4-398-732-01	CUSHION	
70	*4-908-882-01	CLAMP	
71	*A-1195-081-A	PA BOARD, COMPLETE	
72	*A-1380-466-A	K BOARD, COMPLETE	
73	A-1499-936-A	PANEL ASSY, CONTROL	74~81
74	4-395-501-01	KEY TOP	
75	4-395-509-01	SHEET, RUBBER	
76	*1-631-359-11	RC BOARD	
77	*1-631-356-11	RCA BOARD	
78	*1-631-493-11	RCD BOARD	
79	*1-631-358-11	RCC BOARD	
80	*1-631-357-11	RCB BOARD	
81	4-395-508-01	CASE, LOWER	
82	*4-395-584-02	HOLDER, CONTROL PANEL	
83	4-374-303-01	RIVET, NYLON	
84	*3-658-816-00	HINGE, FRONT	
85	3-671-135-00	SCREW, STEP	
86	4-383-026-01	SPRING	
87	1-503-255-00	SPEAKER	
88	1-698-057-11	FAN, DC	
89	*4-034-124-01	BRACKET (A), SENSOR	
90	*4-034-118-01	HOLDER (A), SENSOR	
91	*4-395-528-01	HOLDER (C), TR	
92	*A-1346-190-A	E BOARD, COMPLETE	
93	*A-1390-255-A	NA BOARD, COMPLETE	
94	1-541-950-11	FAN, DC	
95	*4-395-553-01	HOLDER (A), TR	
96	*A-1346-207-A	DC BOARD, COMPLETE	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

3-3. C SHIELD BLOCK

○: 7-682-548-04 SCREW, TERMINAL (M3×8)
△: 7-685-663-79 +ITTP 4×16
●: 7-685-666-79 +BVTP 4×30
■: 7-685-646-79 +BVTP 3×8
▲: 7-685-660-79 +BVTP 4×10
◎: 7-682-550-09 +B 3×12
□: 7-685-647-79 +BVTP 3×10
◆: 7-682-950-01 +PSW 3×12



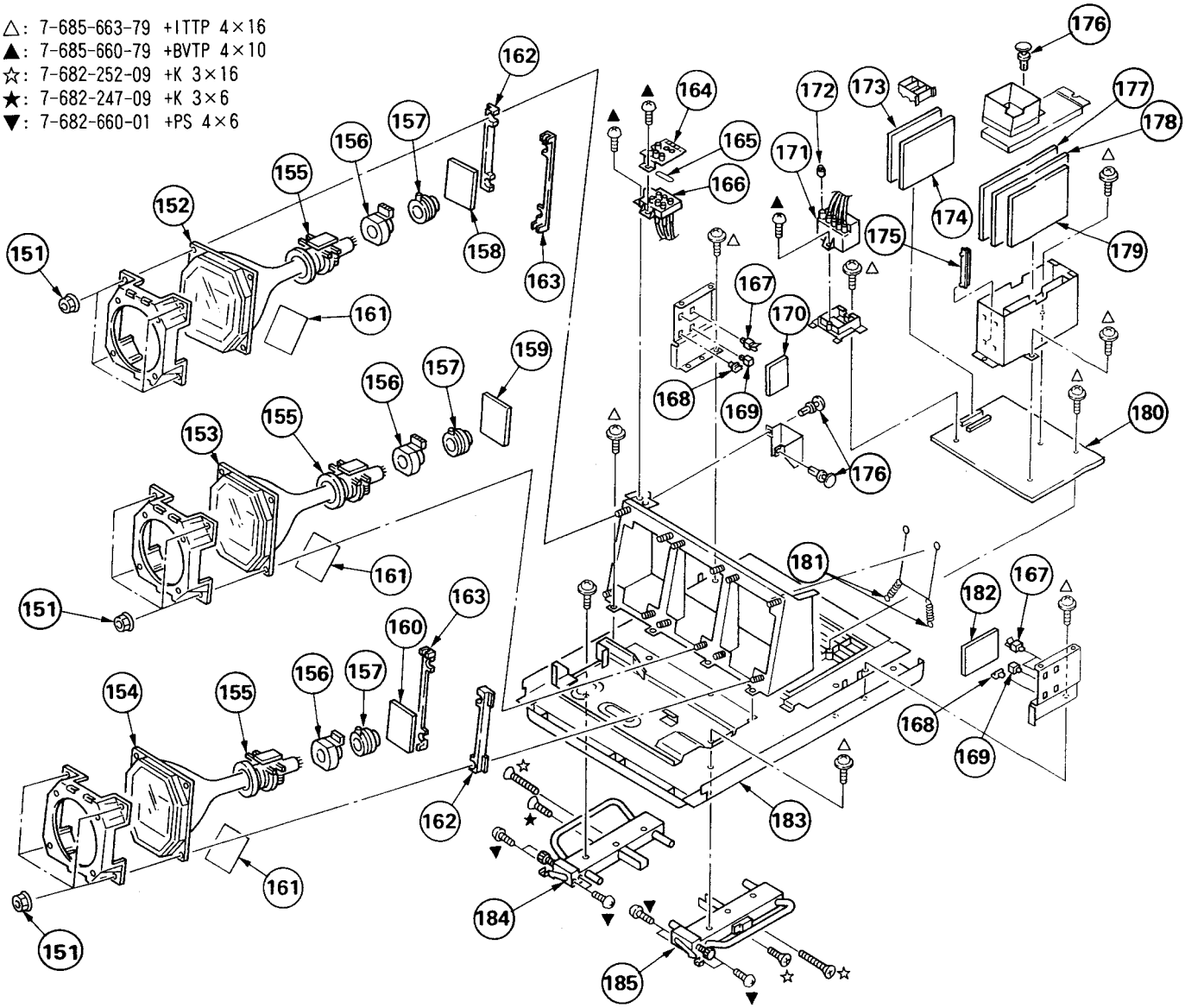
REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*A-1190-195-A	PB BOARD, COMPLETE	
102	⚠ 1-453-166-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	
103	4-042-892-01	CAP, MV	
104	⚠ 1-900-086-01	LEAD ASSY, HIGH-VOLTAGE	
105	4-373-137-01	CAP (Z), RUBBER	
106	⚠ 1-453-108-31	DC BLOCK, HIGH-VOLTAGE	
107	⚠ 1-453-166-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	
108	*4-043-149-01	BRACKET, HV	
109	*A-1331-162-A	CFB BOARD, COMPLETE	
110	*1-555-110-00	CABLE, P-P	
111	*A-1335-027-A	CA (B) BOARD, COMPLETE	
112	*A-1335-026-A	CA (RG) BOARD, COMPLETE	
113	*A-1331-163-A	CFA BOARD, COMPLETE	
114	*4-034-118-01	HOLDER (A), SENSOR	
115	1-698-057-11	FAN, DC	
116	*A-1270-304-A	QM BOARD, COMPLETE	
117	*1-575-091-11	CABLE, P-P	
118	*A-1130-976-A	BM BOARD, COMPLETE	
119	*4-395-530-01	PLATE (Q)	
120	*4-395-558-01	PLATE (Z)	
121	*4-395-559-01	PLATE (B)	
122	*4-360-309-11	SUPPORT, PC BOARD	
123	*4-353-708-00	HOOK, FINGER	
124	*A-1130-978-A	BC BOARD, COMPLETE	
125	*A-1135-692-A	BA BOARD, COMPLETE	
126	*3-673-948-11	CAP, DUST	
127	4-374-303-01	RIVET, NYLON	
128	1-575-092-11	CONNECTOR ASSY, MULTI 14P	
129	4-395-583-01	PANEL (B), CONNECTOR	
130	*A-1135-693-A	BB BOARD, COMPLETE	
131	⚠ 1-559-865-31	LEAD ASSY, HIGH-VOLTAGE	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

3-4. BASE 1

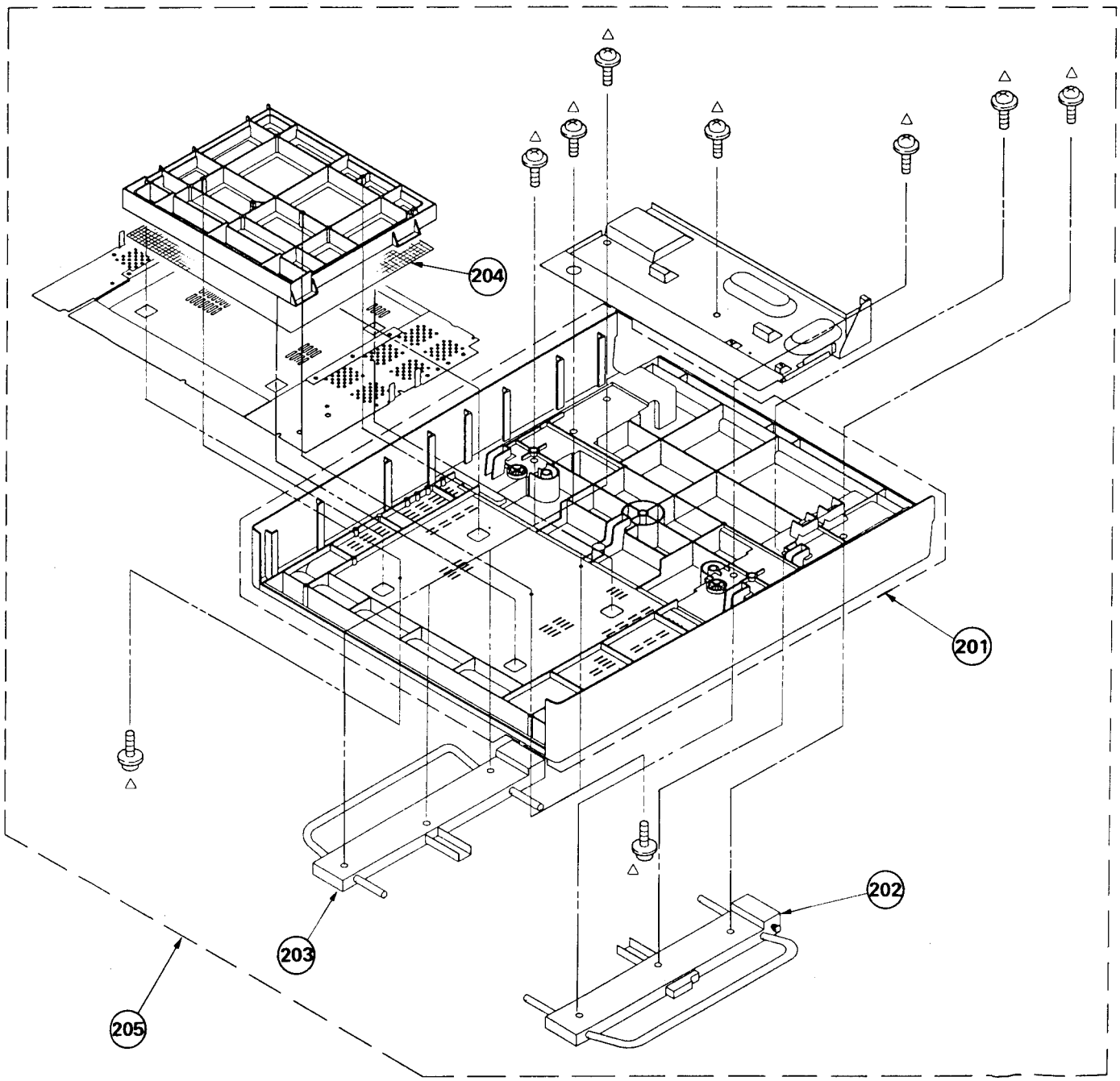
△: 7-685-663-79 +ITTP 4×16
▲: 7-685-660-79 +BVTP 4×10
☆: 7-682-252-09 +K 3×16
★: 7-682-247-09 +K 3×6
▼: 7-682-660-01 +PS 4×6



REF.NO.	PART NO.	DESCRIPTION	REMARK
151	4-304-511-00	NUT (M5), FLANGE	
152	⚠8-736-242-05	PICTURE TUBE 07MSP(B)	
153	⚠8-736-241-05	PICTURE TUBE 07MSP(G)	
154	⚠8-736-243-05	PICTURE TUBE 07MSP(R)	
155	⚠1-451-355-11	DEFLECTION YOKE (Y636PJ)	
156	⚠1-452-730-11	DEFLECTION YOKE, SUB	
157	⚠1-452-429-31	NECK ASSY, PICTURE TUBE (NA366)	
158	*A-1331-326-A	CBB BOARD, COMPLETE	
159	*A-1331-325-A	CBG BOARD, COMPLETE	
160	*A-1331-324-A	CBR BOARD, COMPLETE	
161	4-396-282-01	SHEET (C), ABSORPTION	
162	*4-395-560-01	SPACER (120S), PICTURE TUBE	
163	*4-395-561-01	SPACER (120U), PICTURE TUBE	
164	4-031-481-01	COVER, FOCUS PACK	
165	4-037-163-01	LABEL, SCREEN	
166	⚠1-241-744-21	RESISTOR ASSY (HIGH-VOLTAGE)	
167	*3-701-903-11	HOLDER, PC BOARD	
168	*3-659-682-00	HOLDER, PC BOARD	
169	*3-703-141-00	HOLDER, PCB	
170	*A-1380-374-A	KA BOARD, COMPLETE	
171	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
172	4-373-137-01	CAP (Z), RUBBER	
173	*A-1346-022-A	DD BOARD, COMPLETE	
174	*A-1346-208-A	DE BOARD, COMPLETE	
175	*4-360-309-11	SUPPORT, PC BOARD	
176	4-374-303-01	RIVET, NYLON	
177	*A-1346-189-A	DB BOARD, COMPLETE	
178	*A-1346-191-A	DA BOARD, COMPLETE	
179	*A-1394-325-A	Y BOARD, COMPLETE	
180	*1-639-936-11	DM BOARD	
181	*4-303-774-XX	SPRING	
182	*A-1390-257-A	L BOARD, COMPLETE	
183	4-395-588-03	BASE	
184	X-4395-510-1	HANDLE (LEFT) ASSY	
185	X-4395-509-1	HANDLE (RIGHT) ASSY	

BASE 2

△: 7-685-663-79 +ITTP 4×16



REF.NO.	PART NO.	DESCRIPTION	REMARK
201	4-395-588-03	BASE	
202	X-4395-510-1	HANDLE (LEFT) ASSY	
203	X-4395-509-1	HANDLE (RIGHT) ASSY	
204	*4-043-151-01	NET, BOTTOM	
205	*X-4031-600-1	BASE ASSY	201~204

SECTION 4
ELECTRICAL PARTS LIST

BM BC

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ▣ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- ✱ : Selected to yield optimum performance.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1130-976-A	BM BOARD, COMPLETE			
		**********			
		<CONNECTOR>			
BM-1	*1-568-984-11	CONNECTOR, MALE 96P			
BM-2	*1-568-981-11	CONNECTOR, MALE 64P			
BM-3	*1-568-982-11	CONNECTOR, FEMALE 96P			
BM-4	*1-568-982-11	CONNECTOR, FEMALE 96P			
BM-5	*1-568-985-11	CONNECTOR, FEMALE 64P			
BM-6	*1-568-985-11	CONNECTOR, FEMALE 64P			
BM-7	*1-564-515-11	PLUG, CONNECTOR 12P			
BM-8	*1-568-979-11	CONNECTOR 30P			
BM-9	*1-564-509-11	PLUG, CONNECTOR 6P			
BM-10	*1-564-508-11	PLUG, CONNECTOR 5P			
		<SOCKET>			
J1	*1-526-575-00	SOCKET, PLUG 1P			
J2	*1-526-575-00	SOCKET, PLUG 1P			
J3	*1-526-575-00	SOCKET, PLUG 1P			
J4	*1-526-575-00	SOCKET, PLUG 1P			
J5	*1-526-575-00	SOCKET, PLUG 1P			
J6	*1-526-575-00	SOCKET, PLUG 1P			
**********					
	*A-1130-978-A	BC BOARD, COMPLETE			
		**********			
		<CONNECTOR>			
BC-101	*1-568-981-11	CONNECTOR, MALE 64P			
		<CAPACITOR>			
C101	1-101-004-00	CERAMIC	0.01MF		50V
C102	1-101-004-00	CERAMIC	0.01MF		50V
C103	1-101-004-00	CERAMIC	0.01MF		50V
C104	1-101-004-00	CERAMIC	0.01MF		50V
C105	1-124-927-11	ELECT	4.7MF	20%	50V
C106	1-124-927-11	ELECT	4.7MF	20%	50V
C107	1-124-927-11	ELECT	4.7MF	20%	50V
C108	1-124-927-11	ELECT	4.7MF	20%	50V
C109	1-126-101-11	ELECT	100MF	20%	16V
C110	1-124-907-11	ELECT	10MF	20%	50V
C111	1-101-004-00	CERAMIC	0.01MF		50V
		<DIODE>			
D101	8-719-911-19	DIODE 1SS119			
D102	8-719-911-19	DIODE 1SS119			
D103	8-719-911-19	DIODE 1SS119			
D104	8-719-911-19	DIODE 1SS119			
D105	8-719-911-19	DIODE 1SS119			
D106	8-719-911-19	DIODE 1SS119			
D107	8-719-900-95	DIODE V09G			
		<IC>			
IC101	8-759-007-21	IC MC74HC4053N			
IC102	8-759-001-00	IC MC74HC132N			
IC103	8-759-001-00	IC MC74HC132N			
IC104	8-759-054-26	IC HD74HC123AP			
IC105	8-759-701-79	IC NJM7812FA			
		<COIL>			
L101	1-459-155-00	COIL (WITH CORE) 45UH			
		<TRANSISTOR>			
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q104	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		<RESISTOR>			
R101	1-247-807-31	CARBON	100	5%	1/4W
R102	1-247-807-31	CARBON	100	5%	1/4W
R103	1-249-437-11	CARBON	47K	5%	1/4W
R104	1-249-437-11	CARBON	47K	5%	1/4W
R105	1-249-437-11	CARBON	47K	5%	1/4W
R106	1-249-429-11	CARBON	10K	5%	1/4W
R107	1-249-421-11	CARBON	2.2K	5%	1/4W
R108	1-249-429-11	CARBON	10K	5%	1/4W
R109	1-249-429-11	CARBON	10K	5%	1/4W
R110	1-249-429-11	CARBON	10K	5%	1/4W
R111	1-249-437-11	CARBON	47K	5%	1/4W
R112	1-247-807-31	CARBON	100	5%	1/4W
R113	1-249-424-11	CARBON	3.9K	5%	1/4W
R114	1-247-807-31	CARBON	100	5%	1/4W
R115	1-249-437-11	CARBON	47K	5%	1/4W
R116	1-249-424-11	CARBON	3.9K	5%	1/4W
R117	1-249-429-11	CARBON	10K	5%	1/4W
R118	1-249-435-11	CARBON	33K	5%	1/4W
R119	1-249-435-11	CARBON	33K	5%	1/4W
R120	1-249-421-11	CARBON	2.2K	5%	1/4W
R121	1-249-429-11	CARBON	10K	5%	1/4W
R122	1-249-429-11	CARBON	10K	5%	1/4W

BC **BA**

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<RELAY>			
RY101	1-515-757-11	RELAY			
RY102	1-515-757-11	RELAY			
RY103	1-515-757-11	RELAY			
**********					
	*A-1135-692-A	BA BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CONNECTOR>			
BA-1	*1-568-984-11	CONNECTOR, MALE 96P			
		<TRAP MODULE>			
BPF1	1-236-366-11	MODULE, TRAP			
BPF2	1-236-365-11	MODULE, TRAP			
		<CAPACITOR>			
C1	1-124-910-11	ELECT	47MF	20% 50V	
C2	1-124-910-11	ELECT	47MF	20% 50V	
C3	1-124-910-11	ELECT	47MF	20% 50V	
C7	1-124-907-11	ELECT	10MF	20% 50V	
C8	1-124-122-11	ELECT	100MF	20% 50V	
C9	1-124-122-11	ELECT	100MF	20% 50V	
C10	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C11	1-124-907-11	ELECT	10MF	20% 50V	
C12	1-124-910-11	ELECT	47MF	20% 50V	
C13	1-124-910-11	ELECT	47MF	20% 50V	
C14	1-124-910-11	ELECT	47MF	20% 50V	
C15	1-124-910-11	ELECT	47MF	20% 50V	
C16	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C17	1-124-910-11	ELECT	47MF	20% 50V	
C18	1-124-910-11	ELECT	47MF	20% 50V	
C19	1-163-113-00	CERAMIC CHIP	68PF	5% 50V	
C23	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C24	1-124-910-11	ELECT	47MF	20% 50V	
C25	1-124-910-11	ELECT	47MF	20% 50V	
C26	1-124-910-11	ELECT	47MF	20% 50V	
C27	1-124-910-11	ELECT	47MF	20% 50V	
C28	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C29	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C30	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C31	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C32	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C33	1-124-907-11	ELECT	10MF	20% 50V	
C34	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	
C35	1-163-093-00	CERAMIC CHIP	10PF	5% 50V	
C36	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C37	1-124-903-11	ELECT	1MF	20% 50V	
C39	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	
C40	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C41	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C42	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C43	1-124-907-11	ELECT	10MF	20% 50V	
C44	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C45	1-163-245-11	CERAMIC CHIP	56PF	5% 50V	
C46	1-124-119-00	ELECT	330MF	20% 16V	
C47	1-124-119-00	ELECT	330MF	20% 16V	
C48	1-163-035-00	CERAMIC CHIP	0.047MF	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C49	1-136-153-00	FILM	0.01MF	5% 50V	
C50	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C51	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C52	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	
C53	1-163-241-11	CERAMIC CHIP	39PF	5% 50V	
C54	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C55	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	
C56	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C57	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	
C58	1-163-113-00	CERAMIC CHIP	68PF	5% 50V	
C59	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	
C60	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C61	1-136-177-00	FILM	1MF	5% 50V	
C62	1-136-177-00	FILM	1MF	5% 50V	
C63	1-124-122-11	ELECT	100MF	20% 50V	
C67	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	
C68	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	
C69	1-163-120-00	CERAMIC CHIP	130PF	5% 50V	
C70	1-163-133-00	CERAMIC CHIP	470PF	5% 50V	
C71	1-163-133-00	CERAMIC CHIP	470PF	5% 50V	
C72	1-124-927-11	ELECT	4.7MF	20% 50V	
C73	1-124-903-11	ELECT	1MF	20% 50V	
C74	1-136-171-00	FILM	0.33MF	5% 50V	
C75	1-130-479-00	MYLAR	0.0047MF	5% 50V	
C76	1-136-157-00	FILM	0.022MF	5% 50V	
C77	1-136-157-00	FILM	0.022MF	5% 50V	
C78	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	
C79	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C82	1-136-177-00	FILM	1MF	5% 50V	
C83	1-124-907-11	ELECT	10MF	20% 50V	
C84	1-124-910-11	ELECT	47MF	20% 50V	
C85	1-124-907-11	ELECT	10MF	20% 50V	
C86	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C87	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C88	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C89	1-164-161-11	CERAMIC CHIP	0.0022MF	50V	
C90	1-124-122-11	ELECT	100MF	20% 50V	
C91	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C104	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C106	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C201	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C202	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C203	1-136-157-00	FILM	0.022MF	5% 50V	
C205	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	
C207	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C208	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C211	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C212	1-163-224-11	CERAMIC CHIP	7PF	0.25PF 50V	
C213	1-124-122-11	ELECT	100MF	20% 50V	
C214	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C215	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C216	1-124-122-11	ELECT	100MF	20% 50V	
C217	1-124-122-11	ELECT	100MF	20% 50V	
C218	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C219	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C220	1-124-122-11	ELECT	100MF	20% 50V	
C221	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C222	1-124-122-11	ELECT	100MF	20% 50V	
C223	1-124-122-11	ELECT	100MF	20% 50V	
C224	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C229	1-124-907-11	ELECT	10MF	20% 50V	
C230	1-124-122-11	ELECT	100MF	20% 50V	
C231	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C234	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C235	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C236	1-124-907-11	ELECT	10MF	20%	50V
C237	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C238	1-124-907-11	ELECT	10MF	20%	50V
C239	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C240	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C241	1-124-927-11	ELECT	4.7MF	20%	50V
C242	1-124-907-11	ELECT	10MF	20%	50V
C243	1-124-907-11	ELECT	10MF	20%	50V
C244	1-124-907-11	ELECT	10MF	20%	50V
C301	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C302	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C303	1-124-916-11	ELECT	22MF	20%	50V
C304	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C305	1-124-916-11	ELECT	22MF	20%	50V
C306	1-124-910-11	ELECT	47MF	20%	50V
C307	1-136-169-00	FILM	0.22MF	5%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V
C309	1-124-902-00	ELECT	0.47MF	20%	50V
C310	1-124-902-00	ELECT	0.47MF	20%	50V
C311	1-124-916-11	ELECT	22MF	20%	50V
C312	1-124-910-11	ELECT	47MF	20%	50V
C313	1-124-910-11	ELECT	47MF	20%	50V
C314	1-124-910-11	ELECT	47MF	20%	50V
C315	1-124-910-11	ELECT	47MF	20%	50V
C316	1-124-902-00	ELECT	0.47MF	20%	50V
C317	1-126-101-11	ELECT	100MF	20%	16V
C318	1-124-910-11	ELECT	47MF	20%	50V
C319	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C320	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C321	1-124-907-11	ELECT	10MF	20%	50V
C322	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C323	1-124-907-11	ELECT	10MF	20%	50V
C324	1-124-902-00	ELECT	0.47MF	20%	50V
C325	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C326	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C327	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C328	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C329	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C330	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C331	1-136-177-00	FILM	1MF	5%	50V
C332	1-136-169-00	FILM	0.22MF	5%	50V
C333	1-124-907-11	ELECT	10MF	20%	50V
C334	1-124-910-11	ELECT	47MF	20%	50V
C335	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C336	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C337	1-163-089-00	CERAMIC CHIP	6PF	0.25PF	50V
C338	1-124-907-11	ELECT	10MF	20%	50V
C339	1-124-903-11	ELECT	1MF	20%	50V
C340	1-124-903-11	ELECT	1MF	20%	50V
C341	1-124-907-11	ELECT	10MF	20%	50V
C342	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C343	1-124-910-11	ELECT	47MF	20%	50V
C344	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C346	1-124-907-11	ELECT	10MF	20%	50V
C347	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C350	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C351	1-124-903-11	ELECT	1MF	20%	50V
C352	1-124-907-11	ELECT	10MF	20%	50V

<TRIMMER>

CT101	1-141-181-11	CAP, TRIMMER
CT102	1-141-181-11	CAP, TRIMMER

REF.NO.	PART NO.	DESCRIPTION	REMARK

<DIODE>

D1	8-719-400-18	DIODE MA152WK	
D2	8-719-400-18	DIODE MA152WK	
D3	8-719-400-18	DIODE MA152WK	
D4	8-719-400-18	DIODE MA152WK	
D5	8-719-400-18	DIODE MA152WK	
D6	8-719-104-34	DIODE 1S2836	
D7	8-719-400-18	DIODE MA152WK	
D8	8-719-400-18	DIODE MA152WK	
D9	8-719-400-18	DIODE MA152WK	
D10	8-719-400-18	DIODE MA152WK	
D11	8-719-800-76	DIODE 1SS226	
D12	8-719-400-18	DIODE MA152WK	
D13	8-719-400-18	DIODE MA152WK	
D14	8-719-400-18	DIODE MA152WK	
D101	8-719-105-46	DIODE RD3.3M-B2	
D102	8-719-105-82	DIODE RD5.1M-B2	
D103	8-719-400-18	DIODE MA152WK	
D107	8-719-400-18	DIODE MA152WK	
D108	8-719-900-95	DIODE VO9G	
D109	8-719-900-95	DIODE VO9G	
D110	8-719-105-XX	DIODE RD6.2M-B1	
D112	8-719-400-18	DIODE MA152WK	
D113	8-719-400-18	DIODE MA152WK	
D118	8-719-104-34	DIODE 1S2836	
D119	8-719-400-18	DIODE MA152WK	
D130	8-719-400-18	DIODE MA152WK	
D132	8-719-104-34	DIODE 1S2836	
D201	8-719-400-18	DIODE MA152WK	
D301	8-719-400-18	DIODE MA152WK	
D303	8-719-400-18	DIODE MA152WK	
D304	8-719-105-63	DIODE RD4.3M-B1	
D350	8-719-400-18	DIODE MA152WK	
D351	8-719-400-18	DIODE MA152WK	
D352	8-719-400-18	DIODE MA152WK	

<DELAY LINE>

DL101	1-415-122-31	DELAY LINE, 1H (PAL)
DL102	1-402-679-11	DELAY LINE
DL103	1-415-494-11	DELAY LINE, Y
DL104	1-415-494-11	DELAY LINE, Y

<FILTER>

FL1	1-236-164-11	ENCAPSULATED COMPONENT
FL2	1-236-620-11	FILTER, LOW PASS
FL3	1-236-620-11	FILTER, LOW PASS
FL4	1-236-620-11	FILTER, LOW PASS

<IC>

IC1	8-759-300-71	IC HD14053BFP
IC2	8-759-513-47	IC TDA4555/V1
IC3	8-759-932-16	IC TDA4565
IC5	8-759-710-42	IC NJM2228M
IC6	8-759-208-94	IC CX-894
IC7	8-759-300-71	IC HD14053BFP
IC8	8-752-034-85	IC CXA1216P
IC9	8-759-100-96	IC UPC4558G2
IC10	8-741-765-01	IC SBX1765-01
IC11	8-759-979-16	IC CX-7916

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REF.NO.	PART NO.	DESCRIPTION	REMARK
IC12	1-808-891-11	MODULE SNY-9202	
IC13	8-759-100-96	IC UPC4558G2	
IC14	8-759-929-84	IC SN74LS12NS	
IC15	1-809-576-11	MODULE, H8B7178B	
IC16	8-759-701-79	IC NJM7812FA	
IC17	8-759-504-46	IC PQ05RF1	
IC19	8-759-926-06	IC SN74HC126ANS	
		<COIL>	
L101	1-410-470-11	INDUCTOR 10UH	
L102	1-410-209-51	INDUCTOR CHIP 27UH	
L103	1-410-466-41	INDUCTOR 4.7UH	
L104	1-408-406-00	INDUCTOR 5.6UH	
L105	1-404-539-11	COIL	
L106	1-404-554-11	COIL	
L107	1-404-554-11	COIL	
L108	1-404-554-11	COIL	
L109	1-408-397-00	INDUCTOR 1UH	
L110	1-410-466-41	INDUCTOR 4.7UH	
L111	1-410-466-41	INDUCTOR 4.7UH	
L112	1-410-466-41	INDUCTOR 4.7UH	
L114	1-459-155-00	COIL (WITH CORE) 45UH	
L115	1-459-155-00	COIL (WITH CORE) 45UH	
L116	1-410-466-41	INDUCTOR 4.7UH	
L120	1-404-584-11	COIL	
L136	1-408-777-00	INDUCTOR CHIP 10UH	
		<TRANSISTOR>	
Q2	8-729-901-01	TRANSISTOR DTC144EK	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8	8-729-901-01	TRANSISTOR DTC144EK	
Q9	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q10	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q11	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q15	8-729-901-01	TRANSISTOR DTC144EK	
Q16	8-729-901-01	TRANSISTOR DTC144EK	
Q17	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q18	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q19	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q20	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q21	8-729-901-01	TRANSISTOR DTC144EK	
Q22	8-729-901-01	TRANSISTOR DTC144EK	
Q23	8-729-901-01	TRANSISTOR DTC144EK	
Q24	8-729-901-01	TRANSISTOR DTC144EK	
Q25	8-729-901-01	TRANSISTOR DTC144EK	
Q26	8-729-901-01	TRANSISTOR DTC144EK	
Q27	8-729-901-01	TRANSISTOR DTC144EK	
Q28	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q29	8-729-216-22	TRANSISTOR 2SA1162-G	
Q30	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q31	8-729-216-22	TRANSISTOR 2SA1162-G	
Q32	8-729-216-22	TRANSISTOR 2SA1162-G	
Q33	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q34	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q35	8-729-901-01	TRANSISTOR DTC144EK	
Q36	8-729-216-22	TRANSISTOR 2SA1162-G	
Q37	8-729-901-01	TRANSISTOR DTC144EK	
Q38	8-729-901-01	TRANSISTOR DTC144EK	
Q39	8-729-116-06	TRANSISTOR 2SK160-K6	
Q40	8-729-116-06	TRANSISTOR 2SK160-K6	
Q41	8-729-901-01	TRANSISTOR DTC144EK	
Q43	8-729-901-01	TRANSISTOR DTC144EK	
Q45	8-729-901-01	TRANSISTOR DTC144EK	
Q48	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q49	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q50	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q51	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q52	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q118	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q119	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q120	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q152	8-729-901-01	TRANSISTOR DTC144EK	
Q201	8-729-901-01	TRANSISTOR DTC144EK	
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-901-01	TRANSISTOR DTC144EK	
Q205	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q208	8-729-901-01	TRANSISTOR DTC144EK	
Q209	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q210	8-729-216-22	TRANSISTOR 2SA1162-G	
Q212	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q213	8-729-216-22	TRANSISTOR 2SA1162-G	
Q301	8-729-140-96	TRANSISTOR 2SD774-34	
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q303	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q304	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q305	8-729-901-01	TRANSISTOR DTC144EK	
Q306	8-729-901-01	TRANSISTOR DTC144EK	
Q307	8-729-901-01	TRANSISTOR DTC144EK	
Q308	8-729-901-01	TRANSISTOR DTC144EK	
Q309	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q310	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q311	8-729-901-01	TRANSISTOR DTC144EK	
Q312	8-729-901-01	TRANSISTOR DTC144EK	
Q313	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q314	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q315	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q316	8-729-901-01	TRANSISTOR DTC144EK	
Q317	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q318	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q319	8-729-901-01	TRANSISTOR DTC144EK	
Q320	8-729-901-01	TRANSISTOR DTC144EK	
Q321	8-729-901-01	TRANSISTOR DTC144EK	
Q323	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q324	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q325	8-729-901-01	TRANSISTOR DTC144EK	
Q326	8-729-901-01	TRANSISTOR DTC144EK	
Q327	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q329	8-729-116-06	TRANSISTOR 2SK160-K6	
Q330	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q336	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q337	8-729-216-22	TRANSISTOR 2SA1162-G	
Q338	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q340	8-729-901-01	TRANSISTOR DTC144EK	
Q350	8-729-901-01	TRANSISTOR DTC144EK	
Q351	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q352	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	

BA

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R2	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R3	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R4	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R7	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R8	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R11	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R12	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R13	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R14	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R15	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R16	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R17	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R18	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R19	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R20	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R21	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R22	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R23	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R24	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R25	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R26	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R27	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R29	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R31	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R32	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R33	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R34	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R38	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R39	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R40	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R41	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R42	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R43	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R44	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R45	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R46	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R47	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R48	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R49	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R50	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R51	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R52	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R53	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R54	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R55	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R56	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R57	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R58	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R59	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R60	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R61	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R63	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R64	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R65	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R66	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R67	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R68	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R69	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R70	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R71	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R72	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R73	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R74	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R75	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R76	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R77	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R78	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R80	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R81	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R82	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R83	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R84	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R85	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R86	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R87	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R88	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R89	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R90	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R91	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R92	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R93	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R94	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R95	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R101	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R102	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R103	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R104	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R105	1-216-066-00	METAL GLAZE	5.1K	5%	1/10W	
R106	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R107	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R108	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R116	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R117	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R118	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R119	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R120	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R122	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R123	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R124	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R125	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R126	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R127	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R128	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R129	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R130	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R131	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R132	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R133	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R134	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R135	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R141	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R142	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R143	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R145	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R146	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R148	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R149	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R150	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R201	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R202	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R203	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R204	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

BA

REF.NO.	PART NO.	DESCRIPTION				REMARK
R205	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R206	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R207	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R208	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R209	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R210	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R211	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R212	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R216	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R217	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R218	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R219	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R220	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R221	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R222	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R223	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R224	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R225	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R226	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R227	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R228	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R229	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R230	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R233	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R234	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R235	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R236	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R237	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R238	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R239	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R240	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R241	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R242	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R244	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R290	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R301	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R302	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R303	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R304	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R305	1-216-005-00	METAL GLAZE	15	5%	1/10W	
R306	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R307	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R308	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R309	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R310	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R311	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R312	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R313	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R314	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R315	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R316	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R317	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R318	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R319	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R320	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R321	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R322	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R323	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R324	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R325	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R326	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R327	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R328	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R329	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R330	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R331	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R332	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R333	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R334	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R335	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R336	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R337	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R338	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R339	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R340	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R341	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R342	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R343	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R344	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R345	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R346	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R348	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R350	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R351	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R352	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R353	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R354	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R355	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R356	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R357	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R358	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R359	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R360	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R362	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R363	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R364	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R365	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R366	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R367	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R368	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R369	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R370	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R371	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R372	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R373	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R374	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R375	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R376	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R377	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R378	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R379	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R380	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R381	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R382	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R383	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R384	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R385	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R386	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R387	1-216-635-11	METAL CHIP	220	0.50%	1/10W	

BA BB

REF.NO.	PART NO.	DESCRIPTION				REMARK
R388	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R389	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R390	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R391	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R392	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R393	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R394	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R395	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R396	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R397	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R398	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R399	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R410	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R411	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R415	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R416	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R417	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R418	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R419	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R420	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

<VARIABLE RESISTOR>

RV101	1-230-504-11	RES, ADJ, CARBON 220 (DAR)
RV102	1-228-993-00	RES, ADJ, CARBON 4.7K (SUB HUE)
RV103	1-228-997-00	RES, ADJ, METAL GLAZE 100K (HUE)
RV104	1-228-997-00	RES, ADJ, METAL GLAZE 100K (SUB COLOR)
RV105	1-228-993-00	RES, ADJ, CARBON 4.7K (SUB PICTURE)

<SWITCH>

SW-1	1-570-859-11	SWITCH, SLIDE

<THERMISTOR>

TH101	1-800-071-XX	THERMISTER

<CRYSTAL>

X101	1-567-307-11	OSCILLATOR, CRYSTAL
X102	1-567-131-00	OSCILLATOR, CRYSTAL

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	*A-1135-693-A	BB BOARD, COMPLETE
		**********
	4-382-854-11	SCREW (M3X10), P, SW (+)

<CONNECTOR>

BB-1	*1-568-984-11	CONNECTOR, MALE 96P
BB-2	1-564-595-11	PLUG, CONNECTOR 14P

<CAPACITOR>

C402	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C404	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C405	1-126-101-11	ELECT	100MF	20%	16V
C406	1-124-120-11	ELECT	220MF	20%	16V
C407	1-126-101-11	ELECT	100MF	20%	16V
C408	1-124-907-11	ELECT	10MF	20%	50V
C409	1-126-101-11	ELECT	100MF	20%	16V
C412	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C413	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C414	1-124-907-11	ELECT	10MF	20%	50V
C415	1-126-101-11	ELECT	100MF	20%	16V
C416	1-126-101-11	ELECT	100MF	20%	16V
C417	1-124-120-11	ELECT	220MF	20%	16V
C418	1-126-101-11	ELECT	100MF	20%	16V
C419	1-126-101-11	ELECT	100MF	20%	16V
C425	1-126-101-11	ELECT	100MF	20%	16V
C450	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C451	1-126-103-11	ELECT	470MF	20%	16V
C453	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C501	1-124-907-11	ELECT	10MF	20%	50V
C502	1-124-907-11	ELECT	10MF	20%	50V
C503	1-124-477-11	ELECT	47MF	20%	16V
C504	1-124-477-11	ELECT	47MF	20%	16V
C505	1-124-927-11	ELECT	4.7MF	20%	50V
C506	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C507	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C508	1-124-477-11	ELECT	47MF	20%	16V
C509	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C510	1-124-477-11	ELECT	47MF	20%	16V
C511	1-126-103-11	ELECT	470MF	20%	16V
C512	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C513	1-124-477-11	ELECT	47MF	20%	16V
C514	1-124-927-11	ELECT	4.7MF	20%	50V
C515	1-124-927-11	ELECT	4.7MF	20%	50V
C516	1-124-927-11	ELECT	4.7MF	20%	50V
C518	1-124-907-11	ELECT	10MF	20%	50V
C519	1-124-907-11	ELECT	10MF	20%	50V
C520	1-124-903-11	ELECT	1MF	20%	50V
C521	1-124-907-11	ELECT	10MF	20%	50V
C522	1-124-907-11	ELECT	10MF	20%	50V
C523	1-163-833-00	CERAMIC CHIP	0.068MF		25V
C524	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C525	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C526	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C527	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C528	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C529	1-124-916-11	ELECT	22MF	20%	50V
C650	1-124-657-00	ELECT	10MF	20%	50V
C651	1-136-169-00	FILM	0.22MF	5%	50V
C652	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C653	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C654	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C655	1-124-910-11	ELECT	47MF	20%	50V
C657	1-126-103-11	ELECT	470MF	20%	16V
C658	1-124-122-11	ELECT	100MF	20%	50V
C660	1-124-907-11	ELECT	10MF	20%	50V
C692	1-124-122-11	ELECT	100MF	20%	50V
C693	1-124-122-11	ELECT	100MF	20%	50V
C694	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C695	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C696	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C697	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C700	1-124-657-00	ELECT	10MF	20%	50V
C701	1-136-169-00	FILM	0.22MF	5%	50V
C702	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C703	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C707	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C708	1-124-910-11	ELECT	47MF	20%	50V
C710	1-124-122-11	ELECT	100MF	20%	50V
C711	1-126-103-11	ELECT	470MF	20%	16V
C713	1-124-907-11	ELECT	10MF	20%	50V

BB

REF.NO.	PART NO.	DESCRIPTION				REMARK
C750	1-124-657-00	ELECT	10MF	20%	50V	
C751	1-136-169-00	FILM	0.22MF	5%	50V	
C752	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C753	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C754	1-126-101-11	ELECT	100MF	20%	16V	
C755	1-126-101-11	ELECT	100MF	20%	16V	
C756	1-126-101-11	ELECT	100MF	20%	16V	
C757	1-124-910-11	ELECT	47MF	20%	50V	
C759	1-124-122-11	ELECT	100MF	20%	50V	
C760	1-126-103-11	ELECT	470MF	20%	16V	
C762	1-124-916-11	ELECT	22MF	20%	50V	
C763	1-124-907-11	ELECT	10MF	20%	50V	
C914	1-126-101-11	ELECT	100MF	20%	16V	

<DIODE>

D401	8-719-900-95	DIODE	V09G
D402	8-719-900-95	DIODE	V09G
D450	8-719-400-18	DIODE	MA152WK
D451	8-719-400-18	DIODE	MA152WK
D452	8-719-105-28	DIODE	RD2.4M-B
D501	8-719-400-18	DIODE	MA152WK
D502	8-719-400-18	DIODE	MA152WK
D503	8-719-400-18	DIODE	MA152WK
D504	8-719-105-82	DIODE	RD5.1M-B2
D505	8-719-911-19	DIODE	1SS119
D506	8-719-105-82	DIODE	RD5.1M-B2
D507	8-719-105-82	DIODE	RD5.1M-B2
D508	8-719-105-82	DIODE	RD5.1M-B2
D509	8-719-105-82	DIODE	RD5.1M-B2
D510	8-719-105-82	DIODE	RD5.1M-B2
D511	8-719-105-82	DIODE	RD5.1M-B2
D512	8-719-105-82	DIODE	RD5.1M-B2
D513	8-719-105-82	DIODE	RD5.1M-B2
D514	8-719-105-82	DIODE	RD5.1M-B2
D515	8-719-105-82	DIODE	RD5.1M-B2
D516	8-719-106-80	DIODE	RD13M-B2
D518	8-719-106-80	DIODE	RD13M-B2
D520	8-719-105-82	DIODE	RD5.1M-B2
D521	8-719-105-82	DIODE	RD5.1M-B2
D522	8-719-106-80	DIODE	RD13M-B2
D523	8-719-106-80	DIODE	RD13M-B2
D524	8-719-105-82	DIODE	RD5.1M-B2
D525	8-719-105-28	DIODE	RD2.4M-B
D526	8-719-400-18	DIODE	MA152WK
D527	8-719-105-82	DIODE	RD5.1M-B2
D528	8-719-400-18	DIODE	MA152WK
D529	8-719-105-46	DIODE	RD3.3M-B2
D530	8-719-400-18	DIODE	MA152WK
D634	8-719-400-18	DIODE	MA152WK
D652	8-719-400-18	DIODE	MA152WK
D653	8-719-400-18	DIODE	MA152WK

<IC>

IC401	8-759-800-81	IC LA7016
IC402	8-759-701-79	IC NJM7812FA
IC403	8-759-929-65	IC LM7912CT
IC404	8-759-300-71	IC HD14053BFP
IC405	8-759-926-18	IC SN74HC157ANS
IC407	8-759-926-18	IC SN74HC157ANS
IC408	8-759-300-71	IC HD14053BFP
IC409	8-759-300-71	IC HD14053BFP
IC410	8-759-100-96	IC UPC4558G2
IC411	8-759-100-96	IC UPC4558G2
IC412	8-759-145-27	IC UPC1406HA
IC413	8-749-922-84	IC BX-6474
IC414	8-749-922-83	IC BX-6473
IC415	8-749-922-83	IC BX-6473
IC416	8-749-922-83	IC BX-6473
IC417	8-749-922-86	IC BX-7913
IC418	8-749-922-85	IC BX-6475
IC419	8-749-922-85	IC BX-6475
IC420	8-749-922-85	IC BX-6475
IC422	8-759-100-93	IC UPC393G2
IC423	8-759-925-85	IC SN74HC32ANS
IC424	8-759-100-93	IC UPC393G2

<JACK>

J101	1-566-980-21	CONNECTOR, ROUND TYPE 4P
J102	1-537-257-11	TERMINAL BOARD, INPUT/OUTPUT
J103	1-537-403-11	TERMINAL BOARD, INPUT/OUTPUT

<COIL>

L401	1-459-155-00	COIL (WITH CORE)	45UH
L402	1-459-155-00	COIL (WITH CORE)	45UH
L403	1-459-155-00	COIL (WITH CORE)	45UH
L404	1-459-155-00	COIL (WITH CORE)	45UH
L405	1-410-671-31	INDUCTOR	47UH
L605	1-410-482-31	INDUCTOR	100UH
L651	1-410-482-31	INDUCTOR	100UH

<TRANSISTOR>

Q401	8-729-140-96	TRANSISTOR	2SD774-34
Q402	8-729-140-97	TRANSISTOR	2SB734-34
Q403	8-729-901-01	TRANSISTOR	DTC144EK
Q404	8-729-230-49	TRANSISTOR	2SC2712-YG
Q405	8-729-901-01	TRANSISTOR	DTC144EK
Q450	8-729-230-49	TRANSISTOR	2SC2712-YG
Q451	8-729-230-49	TRANSISTOR	2SC2712-YG
Q452	8-729-230-49	TRANSISTOR	2SC2712-YG
Q453	8-729-901-01	TRANSISTOR	DTC144EK
Q454	8-729-901-01	TRANSISTOR	DTC144EK
Q456	8-729-230-49	TRANSISTOR	2SC2712-YG
Q457	8-729-216-22	TRANSISTOR	2SA1162-G
Q501	8-729-230-49	TRANSISTOR	2SC2712-YG
Q502	8-729-230-49	TRANSISTOR	2SC2712-YG
Q503	8-729-230-49	TRANSISTOR	2SC2712-YG
Q504	8-729-230-49	TRANSISTOR	2SC2712-YG
Q506	8-729-112-65	TRANSISTOR	2SA1462-Y33
Q507	8-729-112-65	TRANSISTOR	2SA1462-Y33
Q508	8-729-112-65	TRANSISTOR	2SA1462-Y33
Q509	8-729-112-65	TRANSISTOR	2SA1462-Y33
Q510	8-729-901-01	TRANSISTOR	DTC144EK
Q511	8-729-901-01	TRANSISTOR	DTC144EK
Q512	8-729-901-01	TRANSISTOR	DTC144EK
Q513	8-729-901-01	TRANSISTOR	DTC144EK
Q514	8-729-901-01	TRANSISTOR	DTC144EK
Q515	8-729-230-49	TRANSISTOR	2SC2712-YG
Q516	8-729-112-65	TRANSISTOR	2SA1462-Y33
Q517	8-729-112-65	TRANSISTOR	2SA1462-Y33
Q518	8-729-230-49	TRANSISTOR	2SC2712-YG
Q519	8-729-230-49	TRANSISTOR	2SC2712-YG
Q520	8-729-901-01	TRANSISTOR	DTC144EK

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q521	8-729-901-01	TRANSISTOR DTC144EK	
Q522	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q523	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q524	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q525	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q526	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q527	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q528	8-729-901-01	TRANSISTOR DTC144EK	
Q529	8-729-901-01	TRANSISTOR DTC144EK	
Q530	8-729-901-01	TRANSISTOR DTC144EK	
Q531	8-729-901-01	TRANSISTOR DTC144EK	
Q532	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q533	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q534	8-729-320-62	TRANSISTOR 2SD789-34	
Q535	8-729-901-01	TRANSISTOR DTC144EK	
Q536	8-729-901-01	TRANSISTOR DTC144EK	
Q537	8-729-901-01	TRANSISTOR DTC144EK	
Q538	8-729-901-01	TRANSISTOR DTC144EK	
Q539	8-729-901-01	TRANSISTOR DTC144EK	
Q540	8-729-901-01	TRANSISTOR DTC144EK	
Q541	8-729-901-01	TRANSISTOR DTC144EK	
Q542	8-729-901-01	TRANSISTOR DTC144EK	
Q543	8-729-901-01	TRANSISTOR DTC144EK	
Q544	8-729-901-01	TRANSISTOR DTC144EK	
Q545	8-729-216-22	TRANSISTOR 2SA1162-G	
Q546	8-729-901-01	TRANSISTOR DTC144EK	
Q547	8-729-216-22	TRANSISTOR 2SA1162-G	
Q548	8-729-901-01	TRANSISTOR DTC144EK	
Q549	8-729-901-01	TRANSISTOR DTC144EK	
Q550	8-729-901-01	TRANSISTOR DTC144EK	
Q551	8-729-901-01	TRANSISTOR DTC144EK	
Q552	8-729-901-01	TRANSISTOR DTC144EK	
Q553	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q650	8-729-116-05	TRANSISTOR 2SK160-K5	
Q651	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q652	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q653	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q654	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q656	8-729-901-01	TRANSISTOR DTC144EK	
Q700	8-729-116-05	TRANSISTOR 2SK160-K5	
Q701	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q702	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q703	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q704	8-729-923-06	TRANSISTOR FMW-8	
Q705	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q706	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q707	8-729-923-06	TRANSISTOR FMW-8	
Q708	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q709	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q710	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q741	8-729-901-01	TRANSISTOR DTC144EK	
Q750	8-729-116-05	TRANSISTOR 2SK160-K5	
Q751	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q752	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q753	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q754	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q755	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q756	8-729-901-01	TRANSISTOR DTC144EK	
Q757	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q800	8-729-230-49	TRANSISTOR 2SC2712-YG	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R401	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R405	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R450	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R451	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R452	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R453	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R454	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R455	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R456	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R459	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R460	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R461	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R462	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R463	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R464	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R466	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R467	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R468	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R470	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R471	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R472	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R473	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R474	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R501	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R502	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R503	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R504	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R505	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R506	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R507	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R508	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R509	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R510	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R511	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R512	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R513	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R514	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R516	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R518	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R519	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R520	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R521	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R522	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R523	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R524	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R525	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R526	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R527	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R528	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R529	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R530	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R532	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R533	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R534	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R535	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R536	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R537	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R538	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R539	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R540	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R541	1-216-041-00	METAL GLAZE	470	5%	1/10W	

BB

REF.NO.	PART NO.	DESCRIPTION				REMARK
R542	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R543	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R544	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R545	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R546	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R547	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R548	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R549	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R550	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R551	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R552	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R553	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R554	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R555	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R556	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R557	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R558	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R559	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R560	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R561	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R562	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R563	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R564	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R565	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R566	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R567	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R568	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R569	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R570	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R571	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R572	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R573	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R574	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R575	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R576	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R577	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R578	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R579	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R580	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R581	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R582	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R583	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R584	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R585	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R586	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R587	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R588	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R589	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R590	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R591	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R592	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R593	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R594	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R595	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R596	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R597	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R598	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R599	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R600	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R601	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R602	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R603	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R604	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R605	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R606	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R607	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R608	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R609	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R610	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R611	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R612	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R613	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R614	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R615	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R616	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R617	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R618	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R619	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R620	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R621	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R622	1-216-448-11	METAL OXIDE	39	5%	2W	F
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R624	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R625	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R626	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R627	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R628	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R629	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R630	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R631	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R632	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R633	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R634	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R637	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R640	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R641	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R642	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R643	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R650	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R651	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R652	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R653	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R654	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R655	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R656	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R657	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R658	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R659	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R660	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R661	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R663	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R664	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R665	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R686	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R688	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R700	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R701	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R702	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R703	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R704	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R705	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R706	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R707	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

BB PB PC PA

REF.NO.	PART NO.	DESCRIPTION				REMARK
R708	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R709	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R710	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R711	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R712	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R713	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R714	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R715	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R716	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R717	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R718	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R719	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R720	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R721	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R722	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R723	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R724	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R725	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R727	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R728	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R729	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R750	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R751	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R752	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R753	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R755	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R756	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R757	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R758	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R759	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R760	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R761	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R762	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R763	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R764	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R765	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R766	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R768	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R769	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R770	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R791	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R836	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R837	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R900	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<RELAY>

RL401	1-515-757-11	RELAY
RL402	1-515-757-11	RELAY
RL403	1-515-757-11	RELAY

<SWITCH>

SW101	1-570-859-11	SWITCH, SLIDE

****

*A-1190-195-A PB BOARD, COMPLETE
****

<CONNECTOR>

CN241	*1-564-506-11	PLUG, CONNECTOR 3P

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<TRANSFORMER>	
FBT10⚠	1-453-166-11	TRANSFORMER ASSY, FLYBACK	
FBT11⚠	1-453-166-11	TRANSFORMER ASSY, FLYBACK	
		<NEON LAMP>	
NL10	1-519-108-XX	LAMP, NEON	
NL11	1-519-108-XX	LAMP, NEON	

****

*A-1190-196-A PC BOARD, COMPLETE
****

<TRANSISTOR>

Q1	8-729-820-71	TRANSISTOR 2SC3998CA

****

*A-1195-081-A PA BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C1	1-124-903-11	ELECT	1MF	20%	50V
C2	1-124-903-11	ELECT	1MF	20%	50V
C3	1-124-927-11	ELECT	4.7MF	20%	50V
C4	1-124-927-11	ELECT	4.7MF	20%	50V
C5	1-124-927-11	ELECT	4.7MF	20%	50V
C6	1-124-927-11	ELECT	4.7MF	20%	50V
C7	1-124-907-11	ELECT	10MF	20%	50V
C8	1-130-471-00	FILM	0.001MF	5%	50V
C9	1-124-034-51	ELECT	33MF	20%	16V
C10	1-124-925-11	ELECT	2.2MF	20%	50V
C11	1-136-165-00	FILM	0.1MF	5%	50V
C12	1-124-907-11	ELECT	10MF	20%	50V
C13	1-136-169-00	FILM	0.22MF	5%	50V
C14	1-124-907-11	ELECT	10MF	20%	50V
C15	1-124-119-00	ELECT	330MF	20%	16V
C16	1-102-973-00	CERAMIC	100PF	5%	50V
C17	1-136-165-00	FILM	0.1MF	5%	50V
C18	1-136-165-00	FILM	0.1MF	5%	50V
C19	1-136-165-00	FILM	0.1MF	5%	50V
C20	1-136-165-00	FILM	0.1MF	5%	50V
C21	1-101-004-00	CERAMIC	0.01MF		50V
C22	1-102-973-00	CERAMIC	100PF	5%	50V
C23	1-124-907-11	ELECT	10MF	20%	50V
C24	1-124-907-11	ELECT	10MF	20%	50V
C25	1-136-169-00	FILM	0.22MF	5%	50V
C26	1-102-978-00	CERAMIC	220PF	5%	50V
C27	1-124-907-11	ELECT	10MF	20%	50V
C28	1-124-903-11	ELECT	1MF	20%	50V
C29	1-124-907-11	ELECT	10MF	20%	50V
C30	1-101-004-00	CERAMIC	0.01MF		50V
C31	1-101-004-00	CERAMIC	0.01MF		50V
C32	1-102-973-00	CERAMIC	100PF	5%	50V
C33	1-102-973-00	CERAMIC	100PF	5%	50V
C34	1-102-973-00	CERAMIC	100PF	5%	50V
C35	1-124-119-00	ELECT	330MF	20%	16V
C36	1-137-364-11	FILM	0.001MF	5%	50V
C37	1-108-704-11	MYLAR	0.1MF	10%	200V
C38	1-124-903-11	ELECT	1MF	20%	50V

PA

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Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C39	1-124-903-11	ELECT	1MF	20%	50V
C40	1-137-366-11	FILM	0.0022MF	5%	50V
C41	1-126-600-11	ELECT	100MF	20%	160V
C42	⚠1-136-722-11	FILM	0.008MF	3%	1.6KV
C43	1-129-718-00	FILM	0.022MF	10%	630V
C45	1-137-364-11	FILM	0.001MF	5%	50V
C46	1-126-101-11	ELECT	100MF	20%	16V
C47	1-124-903-11	ELECT	1MF	20%	50V
C49	1-136-561-11	FILM	0.0068MF	10%	630V
C50	1-137-364-11	FILM	0.001MF	5%	50V
C51	1-126-600-11	ELECT	100MF	20%	160V
C52	1-126-600-11	ELECT	100MF	20%	160V
C53	1-102-030-00	CERAMIC	330PF	10%	500V
C54	⚠1-136-729-11	FILM	1.5MF	5%	400V
C55	1-124-903-11	ELECT	1MF	20%	50V
C56	1-108-692-11	MYLAR	0.01MF	10%	200V
C57	1-108-704-11	MYLAR	0.1MF	10%	200V
C58	1-124-477-11	ELECT	47MF	20%	16V
C59	1-136-165-00	FILM	0.1MF	5%	50V
C60	1-101-004-00	CERAMIC	0.01MF		50V
C61	1-101-004-00	CERAMIC	0.01MF		50V
C62	1-136-165-00	FILM	0.1MF	5%	50V
C63	1-136-165-00	FILM	0.1MF	5%	50V
C65	1-136-103-00	FILM	0.1MF	5%	200V
C67	1-101-004-00	CERAMIC	0.01MF		50V
C68	1-101-004-00	CERAMIC	0.01MF		50V
C70	1-101-004-00	CERAMIC	0.01MF		50V
C71	1-102-973-00	CERAMIC	100PF	5%	50V
C72	1-102-973-00	CERAMIC	100PF	5%	50V
C73	1-126-101-11	ELECT	100MF	20%	16V
C74	1-124-478-11	ELECT	100MF	20%	25V
C75	1-124-563-11	ELECT	2200MF	20%	25V

<CONNECTOR>

CN281	*1-564-518-11	PLUG, CONNECTOR 3P	
CN282	*1-564-520-11	PLUG, CONNECTOR 5P	
CN283	*1-564-526-11	PLUG, CONNECTOR 11P	
CN284	*1-564-528-11	PLUG, CONNECTOR 13P	
CN285	1-564-523-11	PLUG, CONNECTOR 8P	
CN286	*1-506-348-XX	PIN, CONNECTOR 6P	
CN287	*1-564-521-11	PLUG, CONNECTOR 6P	
CN288	*1-564-518-11	PLUG, CONNECTOR 3P	
CN289	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN290	1-506-348-XX	PIN, CONNECTOR 4P	

<DIODE>

D1	8-719-911-19	DIODE 1SS119
D2	8-719-911-19	DIODE 1SS119
D3	8-719-911-19	DIODE 1SS119
D4	8-719-911-19	DIODE 1SS119
D5	8-719-109-85	DIODE RD5.1ESB2
D6	8-719-911-19	DIODE 1SS119
D7	8-719-110-41	DIODE RD15ESB2
D8	8-719-110-36	DIODE RD13ESB2
D9	8-719-911-19	DIODE 1SS119
D10	8-719-109-85	DIODE RD5.1ESB2
D11	8-719-109-66	DIODE RD3.3ESB2
D12	8-719-109-85	DIODE RD5.1ESB2
D13	8-719-911-19	DIODE 1SS119
D14	8-719-911-19	DIODE 1SS119
D15	8-719-911-19	DIODE 1SS119
D16	8-719-110-36	DIODE RD13ESB2
D17	8-719-945-81	DIODE ERC06-15SA
D18	8-719-911-19	DIODE 1SS119
D19	8-719-945-81	DIODE ERC06-15SA
D20	8-719-911-19	DIODE 1SS119
D21	8-719-911-19	DIODE 1SS119
D22	8-719-110-36	DIODE RD13ESB2
D23	8-719-920-67	DIODE ERC91-02
D24	8-719-911-19	DIODE 1SS119
D25	8-719-911-19	DIODE 1SS119
D26	8-719-920-67	DIODE ERC91-02
D27	8-719-911-19	DIODE 1SS119
D28	8-719-911-19	DIODE 1SS119
D29	8-719-911-19	DIODE 1SS119
D30	8-719-110-78	DIODE RD33ESB2
D31	8-719-911-19	DIODE 1SS119
D32	8-719-900-95	DIODE V09G
D33	8-719-911-19	DIODE 1SS119
D34	8-719-920-67	DIODE ERC91-02
D35	8-719-911-19	DIODE 1SS119
D36	8-719-110-36	DIODE RD13ESB2

<FERRITE BEAD>

FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH

<IC>

IC1	8-759-503-91	IC TL082ACP
IC2	8-759-103-93	IC UPC393C
IC3	8-759-103-93	IC UPC393C
IC4	8-759-103-93	IC UPC393C
IC5	8-759-701-79	IC NJM7812FA
IC6	8-759-929-65	IC LM7912CT
IC7	8-759-240-40	IC TC4040BP
IC8	8-759-045-72	IC MC14572UBCP
IC9	8-759-140-11	IC UPD4011BC
IC10	8-759-040-01	IC MC14001BCP
IC11	8-759-503-91	IC TL082ACP
IC12	8-759-103-93	IC UPC393C
IC13	8-759-908-15	IC TL431CLP

<COIL>

L1	1-409-543-11	COIL, CHOKE 420UH
L2	1-409-543-11	COIL, CHOKE 420UH
L3	1-459-614-11	COIL, CHOKE 90UH
L4	1-459-614-11	COIL, CHOKE 90UH
L5	1-459-155-00	COIL (WITH CORE) 45UH
L6	1-459-155-00	COIL (WITH CORE) 45UH
L7	1-412-521-31	INDUCTOR 4.7UH
L8	1-412-521-31	INDUCTOR 4.7UH

<NEON LAMP>

NL1	1-519-108-XX	LAMP, NEON

<TRANSISTOR>

Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q4	8-729-119-76	TRANSISTOR 2SA1175-HFE

PA

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

• The components identified by ✖ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q5	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q7	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q8	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q9	8-729-140-96	TRANSISTOR 2SD774-34				
Q10	8-729-140-97	TRANSISTOR 2SB734-34				
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q12	8-729-900-65	TRANSISTOR DTA144ES				
Q13	8-729-900-89	TRANSISTOR DTC144ES				
Q15	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q18	8-729-804-48	TRANSISTOR 2SC3675				
Q19	8-729-024-38	TRANSISTOR IRFIP250				
Q20	8-729-143-42	TRANSISTOR 2SK929				
Q21	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK				

<RESISTOR>

✖R1	⚠	METAL			1/4W	
R2	1-249-433-11	CARBON	22K	5%	1/4W	
R3	1-249-439-11	CARBON	68K	5%	1/4W	
✖R4	⚠	METAL			1/4W	
R5	1-249-433-11	CARBON	22K	5%	1/4W	
R6	1-249-439-11	CARBON	68K	5%	1/4W	
R7	1-249-433-11	CARBON	22K	5%	1/4W	
R8	1-249-433-11	CARBON	22K	5%	1/4W	
R9	1-249-423-11	CARBON	3.3K	5%	1/4W	
R10	1-249-429-11	CARBON	10K	5%	1/4W	
R12	1-249-429-11	CARBON	10K	5%	1/4W	
R13	1-249-429-11	CARBON	10K	5%	1/4W	
R14	1-249-429-11	CARBON	10K	5%	1/4W	
R15	1-249-433-11	CARBON	22K	5%	1/4W	
R16	1-249-425-11	CARBON	4.7K	5%	1/4W	
R17	1-247-807-31	CARBON	100	5%	1/4W	
R18	1-249-429-11	CARBON	10K	5%	1/4W	
R19	1-249-429-11	CARBON	10K	5%	1/4W	
R20	1-249-433-11	CARBON	22K	5%	1/4W	
R21	1-249-441-11	CARBON	100K	5%	1/4W	
R22	1-215-463-00	METAL	56K	1%	1/4W	
R23	1-215-455-00	METAL	27K	1%	1/4W	
R24	1-249-429-11	CARBON	10K	5%	1/4W	
R26	1-249-417-11	CARBON	1K	5%	1/4W	
R27	1-249-429-11	CARBON	10K	5%	1/4W	
R28	1-215-423-00	METAL	1.2K	1%	1/4W	
✖R29	⚠	METAL			1/4W	
✖R30	⚠	METAL			1/4W	
R31	1-249-436-11	CARBON	39K	5%	1/4W	
R32	1-215-473-00	METAL	150K	1%	1/4W	
✖R33	⚠	METAL			1/4W	
✖R34	⚠	METAL			1/4W	
R35	1-249-417-11	CARBON	1K	5%	1/4W	
R36	1-249-423-11	CARBON	3.3K	5%	1/4W	
R37	1-249-429-11	CARBON	10K	5%	1/4W	
R38	1-249-429-11	CARBON	10K	5%	1/4W	
R39	1-249-429-11	CARBON	10K	5%	1/4W	
R41	1-249-431-11	CARBON	15K	5%	1/4W	
R42	1-249-417-11	CARBON	1K	5%	1/4W	
R43	1-215-461-00	METAL	47K	1%	1/4W	
R44	1-215-432-00	METAL	3K	1%	1/4W	
R45	1-215-432-00	METAL	3K	1%	1/4W	
R46	1-215-432-00	METAL	3K	1%	1/4W	
R47	1-215-432-00	METAL	3K	1%	1/4W	
R48	1-249-417-11	CARBON	1K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R49	1-249-417-11	CARBON	1K	5%	1/4W	
R50	1-249-429-11	CARBON	10K	5%	1/4W	
R51	1-249-423-11	CARBON	3.3K	5%	1/4W	
R52	1-249-423-11	CARBON	3.3K	5%	1/4W	
R53	1-249-417-11	CARBON	1K	5%	1/4W	
R54	1-249-417-11	CARBON	1K	5%	1/4W	
R55	1-249-423-11	CARBON	3.3K	5%	1/4W	
R56	1-247-895-00	CARBON	470K	5%	1/4W	
R57	1-249-417-11	CARBON	1K	5%	1/4W	
R58	1-249-437-11	CARBON	47K	5%	1/4W	
R59	1-247-903-00	CARBON	1M	5%	1/4W	
R61	1-249-417-11	CARBON	1K	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-249-411-11	CARBON	330	5%	1/4W	
R64	1-215-456-00	METAL	30K	1%	1/4W	
R65	1-215-445-00	METAL	10K	1%	1/4W	
R66	1-215-447-00	METAL	12K	1%	1/4W	
R67	1-247-903-00	CARBON	1M	5%	1/4W	
R68	1-249-417-11	CARBON	1K	5%	1/4W	
R69	1-215-455-00	METAL	27K	1%	1/4W	
R71	1-249-429-11	CARBON	10K	5%	1/4W	
R72	1-247-807-31	CARBON	100	5%	1/4W	
R73	1-249-423-11	CARBON	3.3K	5%	1/4W	
R74	1-249-417-11	CARBON	1K	5%	1/4W	
R75	1-249-417-11	CARBON	1K	5%	1/4W	
R76	1-249-417-11	CARBON	1K	5%	1/4W	
R77	1-247-720-11	CARBON	3.9K	5%	1/4W	F
R78	1-249-431-11	CARBON	15K	5%	1/4W	
R79	1-249-431-11	CARBON	15K	5%	1/4W	
R80	1-249-417-11	CARBON	1K	5%	1/4W	
R81	1-249-441-11	CARBON	100K	5%	1/4W	
R82	1-249-441-11	CARBON	100K	5%	1/4W	
R83	1-249-422-11	CARBON	2.7K	5%	1/4W	
R84	1-249-431-11	CARBON	15K	5%	1/4W	
R85	1-215-892-11	METAL OXIDE	1K	5%	2W	F
R86	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F
R88	1-249-441-11	CARBON	100K	5%	1/4W	
R89	1-215-905-11	METAL OXIDE	10	5%	3W	F
R90	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R91	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R92	1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R93	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R94	1-215-863-11	METAL OXIDE	100	5%	1W	F
R95	1-215-461-00	METAL	47K	1%	1/4W	
R96	1-249-437-11	CARBON	47K	5%	1/4W	
R97	1-249-433-11	CARBON	22K	5%	1/4W	
R98	1-215-863-11	METAL OXIDE	100	5%	1W	F
R99	1-247-725-11	CARBON	10K	5%	1/4W	F
R101	1-247-807-31	CARBON	100	5%	1/4W	
R102	1-249-441-11	CARBON	100K	5%	1/4W	
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-441-11	CARBON	100K	5%	1/4W	
R105	1-249-429-11	CARBON	10K	5%	1/4W	
R106	1-249-425-11	CARBON	4.7K	5%	1/4W	
R107	1-249-433-11	CARBON	22K	5%	1/4W	
R108	1-249-441-11	CARBON	100K	5%	1/4W	
R109	1-249-437-11	CARBON	47K	5%	1/4W	
R110	1-249-441-11	CARBON	100K	5%	1/4W	
R111	1-249-437-11	CARBON	47K	5%	1/4W	
R116	1-214-784-00	METAL	200K	1%	1/4W	
R117	1-247-725-11	CARBON	10K	5%	1/4W	F
R118	1-202-726-00	SOLID	3.9M	20%	1/2W	
R121	1-215-475-00	METAL	180K	1%	1/4W	

PA **QM** **RC**

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R122	1-215-475-00	METAL	180K	1%	1/4W	
R124	1-249-425-11	CARBON	4.7K	5%	1/4W	
R125	1-247-807-31	CARBON	100	5%	1/4W	
R126	1-249-429-11	CARBON	10K	5%	1/4W	
R127	1-247-807-31	CARBON	100	5%	1/4W	
R128	1-247-807-31	CARBON	100	5%	1/4W	
⊠R131 ⚠		METAL			1/4W	
⊠R132 ⚠		METAL			1/4W	
R133	1-215-905-11	METAL OXIDE	10	5%	3W	F
R134	1-215-905-11	METAL OXIDE	10	5%	3W	F
R135	1-215-905-11	METAL OXIDE	10	5%	3W	F
R136	1-202-726-00	SOLID	3.9M	20%	1/2W	
R137	1-249-401-11	CARBON	47	5%	1/4W	F
R138	1-249-417-11	CARBON	1K	5%	1/4W	
R139	1-247-807-31	CARBON	100	5%	1/4W	
R140	1-247-807-31	CARBON	100	5%	1/4W	
R141	1-247-807-31	CARBON	100	5%	1/4W	
R142	1-249-417-11	CARBON	1K	5%	1/4W	
R143	1-215-432-00	METAL	3K	1%	1/4W	
R144	1-215-432-00	METAL	3K	1%	1/4W	

<TRANSISTOR>

T1	1-437-144-11	TRANSFORMER, FERRITE (HDT)				

<CRYSTAL>

X1	1-578-768-11	VIBLATOR, CERAMIC				

****

	*A-1270-304-A	QM BOARD, COMPLETE				
		**********				

<SOCKET>

J7	*1-526-575-00	SOCKET, PLUG 1P				
J8	*1-526-575-00	SOCKET, PLUG 1P				
J9	*1-526-575-00	SOCKET, PLUG 1P				

<CONNECTOR>

QM-1	*1-568-985-11	CONNECTOR, FEMALE 64P				
QM-2	*1-564-515-11	PLUG, CONNECTOR 12P				
QM-3	*1-564-509-11	PLUG, CONNECTOR 6P				
QM-4	*1-564-508-11	PLUG, CONNECTOR 5P				

****

	*1-631-359-11	RC BOARD				
		********				
		(INCLUDING RCA,RCB,RCC,RCD BOARD)				

<CAPACITOR>

C1	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C2	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C3	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C4	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C5	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C6	1-126-967-11	ELECT	47MF	20%	6.3V	

<DIODE>

D1	8-719-901-44	DIODE SLP144B				
D4	8-719-801-48	DIODE 1SS193				
D6	8-719-105-51	DIODE RD3.6M-B1				

REF.NO.	PART NO.	DESCRIPTION				REMARK

<IC>

IC1	8-759-634-91	IC M50461-157SP				

<COIL>

L1	1-408-789-21	INDUCTOR CHIP	100UH			

<TRANSISTOR>

Q1	8-729-216-22	TRANSISTOR 2SA1162-G				
Q2	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q6	8-729-216-22	TRANSISTOR 2SA1162-G				
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q8	8-729-101-07	TRANSISTOR 2SB798-DL				
Q9	8-729-230-49	TRANSISTOR 2SC2712-YG				

<RESISTOR>

R1	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R4	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R6	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R10	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R11	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R13	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R14	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R15	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R16	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R17	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R18	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R19	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R20	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R21	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R22	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R23	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R24	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R25	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R26	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R27	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R28	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R29	1-216-028-00	METAL GLAZE	130	5%	1/10W	
R30	1-216-028-00	METAL GLAZE	130	5%	1/10W	

<CONNECTOR>

RC-1	*1-564-519-11	PLUG, CONNECTOR 4P				

<SWITCH>

S1	1-553-856-00	SWITCH, KEY BOARD (LIGHT)				

<CRYSTAL>

X1	1-527-476-00	OSCILLATOR, CERAMIC				

****

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Ne les remplacer que par une piece portant le numero specifie.

RCA **RCB** **RCC**
RCD **CFB** **CFA** **CBR**

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-631-356-11	RCA BOARD	
		*********	
		<DIODE>	
D5	8-719-938-67	DIODE GL3EG8	
D6	8-719-938-67	DIODE GL3EG8	
D7	8-719-938-67	DIODE GL3EG8	
D8	8-719-938-67	DIODE GL3EG8	
D9	8-719-938-67	DIODE GL3EG8	
**********			
	*1-631-357-11	RCB BOARD	
		*********	
		<DIODE>	
D10	8-719-938-67	DIODE GL3EG8	
D11	8-719-938-67	DIODE GL3EG8	
D12	8-719-938-67	DIODE GL3EG8	
D13	8-719-938-67	DIODE GL3EG8	
D14	8-719-938-67	DIODE GL3EG8	
**********			
	*1-631-358-11	RCC BOARD	
		*********	
		<DIODE>	
D15	8-719-938-67	DIODE GL3EG8	
D16	8-719-938-67	DIODE GL3EG8	
**********			
	*1-631-493-11	RCD BOARD	
		*********	
		<DIODE>	
D1	8-719-938-67	DIODE GL3EG8	
**********			
	*A-1331-162-A	CFB BOARD, COMPLETE	
		**********	
		<CAPACITOR>	
C201	1-101-821-00	CERAMIC 0.0022MF	500V
C202	1-101-821-00	CERAMIC 0.0022MF	500V
C203	1-101-821-00	CERAMIC 0.0022MF	500V
C204	1-101-821-00	CERAMIC 0.0022MF	500V
C205	1-101-821-00	CERAMIC 0.0022MF	500V
		<CONNECTOR>	
CFB-1	*1-564-528-11	PLUG, CONNECTOR 13P	
CFB-2	*1-564-514-11	PLUG, CONNECTOR 11P	
CFB-3	1-564-505-11	PLUG, CONNECTOR 2P	
CFB-4	*1-564-519-11	PLUG, CONNECTOR 4P	
CFB-5	*1-564-507-11	PLUG, CONNECTOR 4P	
		<FILTER>	
FL201	1-236-071-11	ENCAPSULATED COMPONENT	
FL202	1-236-164-11	ENCAPSULATED COMPONENT	
FL203	1-236-071-11	ENCAPSULATED COMPONENT	
FL204	1-236-071-11	ENCAPSULATED COMPONENT	
FL205	1-236-071-11	ENCAPSULATED COMPONENT	
FL206	1-236-071-11	ENCAPSULATED COMPONENT	
FL207	1-236-164-11	ENCAPSULATED COMPONENT	
FL208	1-236-164-11	ENCAPSULATED COMPONENT	
FL209	1-236-164-11	ENCAPSULATED COMPONENT	
FL210	1-236-164-11	ENCAPSULATED COMPONENT	
**********			
	*A-1331-163-A	CFA BOARD, COMPLETE	
		**********	
		<CONNECTOR>	
CFA-1	*1-575-136-11	CONNECTOR ASSY, FLAT CABLE	
CFA-2	*1-575-136-11	CONNECTOR ASSY, FLAT CABLE	
		<FILTER>	
FL1	1-236-164-11	ENCAPSULATED COMPONENT	
FL2	1-236-164-11	ENCAPSULATED COMPONENT	
FL3	1-236-164-11	ENCAPSULATED COMPONENT	
FL4	1-236-101-11	ENCAPSULATED COMPONENT	
FL5	1-236-164-11	ENCAPSULATED COMPONENT	
FL6	1-236-101-11	ENCAPSULATED COMPONENT	
FL7	1-236-164-11	ENCAPSULATED COMPONENT	
FL8	1-236-101-11	ENCAPSULATED COMPONENT	
FL9	1-236-164-11	ENCAPSULATED COMPONENT	
FL10	1-236-164-11	ENCAPSULATED COMPONENT	
FL11	1-236-164-11	ENCAPSULATED COMPONENT	
FL12	1-236-164-11	ENCAPSULATED COMPONENT	
FL13	1-236-164-11	ENCAPSULATED COMPONENT	
FL14	1-236-164-11	ENCAPSULATED COMPONENT	
FL15	1-236-164-11	ENCAPSULATED COMPONENT	
FL16	1-236-164-11	ENCAPSULATED COMPONENT	
FL17	1-236-164-11	ENCAPSULATED COMPONENT	
FL18	1-236-164-11	ENCAPSULATED COMPONENT	
FL19	1-236-164-11	ENCAPSULATED COMPONENT	
FL20	1-236-164-11	ENCAPSULATED COMPONENT	
FL21	1-236-164-11	ENCAPSULATED COMPONENT	
FL22	1-236-101-11	ENCAPSULATED COMPONENT	
FL23	1-236-101-11	ENCAPSULATED COMPONENT	
FL24	1-236-164-11	ENCAPSULATED COMPONENT	
**********			
	*A-1331-324-A	CBR BOARD, COMPLETE	
		**********	
	⚠1-526-812-12	SOCKET, PICTURE TUBE	
	1-575-098-11	LEAD ASSY, SIELD HIGH VOLTAGE	
		<CAPACITOR>	
C301	1-162-114-00	CERAMIC 0.0047MF	2KV
		<CONNECTOR>	
CN251	*1-564-507-11	PLUG, CONNECTOR 4P	
CN252	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN253	*1-564-507-11	PLUG, CONNECTOR 4P	
CN254	*1-506-371-00	PIN, CONNECTOR 2P	
CN255	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN256	*1-564-507-11	PLUG, CONNECTOR 4P	

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Ne les remplacer que par une piece portant le numero specifie.

CBR CBG CBB CA(RG)

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<COIL>				
L303	1-408-763-00	INDUCTOR	0.82UH			
		<NEON LAMP>				
NL301	1-519-423-11	LAMP, NEON				
NL302	1-519-423-11	LAMP, NEON				
NL303	1-519-368-21	LAMP, NEON				
NL304	1-519-368-21	LAMP, NEON				
NL305	1-519-423-11	LAMP, NEON				
		<RESISTOR>				
R301	1-202-818-00	SOLID	1K	20%	1/2W	
R302	1-202-818-00	SOLID	1K	20%	1/2W	
R306	1-202-838-00	SOLID	100K	20%	1/2W	
R307	1-202-535-81	SOLID	27	20%	1/2W	
R308	1-202-525-81	SOLID	10	20%	1/2W	
R309	1-202-832-00	SOLID	15K	20%	1/2W	
		<SPARK GAP>				
SG301	1-519-063-XX	DISCHARGING GAP				
**********						
	*A-1331-325-A	CBG BOARD, COMPLETE				
		**********				
	⚠1-526-812-12	SOCKET, PICTURE TUBE				
	1-575-097-11	LEAD ASSY, SIELD HIGH VOLTAGE				
		<CAPACITOR>				
C401	1-162-114-00	CERAMIC	0.0047MF			2KV
		<CONNECTOR>				
CN261	*1-564-507-11	PLUG, CONNECTOR 4P				
CN262	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN263	*1-564-507-11	PLUG, CONNECTOR 4P				
CN264	*1-506-371-00	PIN, CONNECTOR 2P				
CN265	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN266	*1-564-507-11	PLUG, CONNECTOR 4P				
		<COIL>				
L403	1-408-763-00	INDUCTOR	0.82UH			
		<NEON LAMP>				
NL401	1-519-423-11	LAMP, NEON				
NL402	1-519-423-11	LAMP, NEON				
NL403	1-519-368-21	LAMP, NEON				
NL404	1-519-368-21	LAMP, NEON				
NL405	1-519-423-11	LAMP, NEON				
		<RESISTOR>				
R401	1-202-818-00	SOLID	1K	20%	1/2W	
R402	1-202-818-00	SOLID	1K	20%	1/2W	
R406	1-202-838-00	SOLID	100K	20%	1/2W	
R407	1-202-535-81	SOLID	27	20%	1/2W	
R408	1-202-525-81	SOLID	10	20%	1/2W	
R409	1-202-832-00	SOLID	15K	20%	1/2W	
		<SPARK GAP>				
SG401	1-519-063-XX	DISCHARGING GAP				
**********						
	*A-1331-326-A	CBB BOARD, COMPLETE				
		**********				
	⚠1-526-812-12	SOCKET, PICTURE TUBE				
	1-575-096-11	LEAD ASSY, SIELD HIGH VOLTAGE				
		<CAPACITOR>				
C501	1-162-114-00	CERAMIC	0.0047MF			2KV
		<CONNECTOR>				
CN271	*1-564-507-11	PLUG, CONNECTOR 4P				
CN272	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN273	*1-564-507-11	PLUG, CONNECTOR 4P				
CN274	*1-506-371-00	PIN, CONNECTOR 2P				
CN275	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN276	*1-564-507-11	PLUG, CONNECTOR 4P				
		<COIL>				
L503	1-408-763-00	INDUCTOR	0.82UH			
		<NEON LAMP>				
NL501	1-519-423-11	LAMP, NEON				
NL502	1-519-423-11	LAMP, NEON				
NL503	1-519-368-21	LAMP, NEON				
NL504	1-519-368-21	LAMP, NEON				
NL505	1-519-423-11	LAMP, NEON				
		<RESISTOR>				
R501	1-202-818-00	SOLID	1K	20%	1/2W	
R502	1-202-818-00	SOLID	1K	20%	1/2W	
R506	1-202-838-00	SOLID	100K	20%	1/2W	
R507	1-202-535-81	SOLID	27	20%	1/2W	
R508	1-202-525-81	SOLID	10	20%	1/2W	
R509	1-202-832-00	SOLID	15K	20%	1/2W	
		<SPARK GAP>				
SG501	1-519-063-XX	DISCHARGING GAP				
**********						
	*A-1335-026-A	CA (RG) BOARD, COMPLETE				
		**********				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C1	1-124-907-11	ELECT	10MF	20%	50V	
C2	1-126-101-11	ELECT	100MF	20%	16V	
C3	1-124-907-11	ELECT	10MF	20%	50V	
C4	1-126-101-11	ELECT	100MF	20%	16V	

CA(RG)

REF.NO.	PART NO.	DESCRIPTION			REMARK
C5	1-124-916-11	ELECT	22MF	20%	50V
C6	1-126-101-11	ELECT	100MF	20%	16V
C7	1-124-916-11	ELECT	22MF	20%	50V
C8	1-102-820-00	CERAMIC	330PF	5%	50V
C9	1-101-880-00	CERAMIC	47PF	5%	50V
C10	1-101-004-00	CERAMIC	0.01MF		50V
C11	1-101-004-00	CERAMIC	0.01MF		50V
C12	1-101-004-00	CERAMIC	0.01MF		50V
C13	1-101-004-00	CERAMIC	0.01MF		50V
C14	1-124-916-11	ELECT	22MF	20%	50V
C16	1-124-916-11	ELECT	22MF	20%	50V
C17	1-136-165-00	FILM	0.1MF	5%	50V
C18	1-136-165-00	FILM	0.1MF	5%	50V
C19	1-136-165-00	FILM	0.1MF	5%	50V
C20	1-136-165-00	FILM	0.1MF	5%	50V
C21	1-124-916-11	ELECT	22MF	20%	50V
C22	1-126-103-11	ELECT	470MF	20%	16V
C23	1-136-171-00	FILM	0.33MF	5%	50V
C24	1-102-038-00	CERAMIC	0.001MF		500V
C25	1-124-907-11	ELECT	10MF	20%	50V
C26	1-126-101-11	ELECT	100MF	20%	16V
C101	1-124-282-00	ELECT	22MF	20%	16V
C102	1-124-477-11	ELECT	47MF	20%	16V
C103	1-126-101-11	ELECT	100MF	20%	16V
C104	1-126-101-11	ELECT	100MF	20%	16V
C105	1-124-916-11	ELECT	22MF	20%	50V
C106	1-102-973-00	CERAMIC	100PF	5%	50V
C107	1-101-361-00	CERAMIC	150PF	5%	50V
C110	1-124-798-11	ELECT	1MF	20%	160V
C111	1-124-916-11	ELECT	22MF	20%	50V
C112	1-136-165-00	FILM	0.1MF	5%	50V
C113	1-136-165-00	FILM	0.1MF	5%	50V
C114	1-126-174-51	ELECT	10MF	20%	350V
C115	1-102-038-00	CERAMIC	0.001MF		500V
C116	1-102-050-00	CERAMIC	0.01MF		500V
C117	1-124-768-11	ELECT	4.7MF	20%	50V
C118	1-101-004-00	CERAMIC	0.01MF		50V
C119	1-136-165-00	FILM	0.1MF	5%	50V
C120	1-124-903-11	ELECT	1MF	20%	50V
C121	1-124-916-11	ELECT	22MF	20%	50V
C122	1-124-916-11	ELECT	22MF	20%	50V
C123	1-102-050-00	CERAMIC	0.01MF		500V
C125	1-124-916-11	ELECT	22MF	20%	50V
C126	1-101-004-00	CERAMIC	0.01MF		50V
C127	1-101-004-00	CERAMIC	0.01MF		50V
C201	1-124-282-00	ELECT	22MF	20%	16V
C202	1-124-916-11	ELECT	22MF	20%	50V
C203	1-126-101-11	ELECT	100MF	20%	16V
C204	1-126-101-11	ELECT	100MF	20%	16V
C205	1-124-916-11	ELECT	22MF	20%	50V
C206	1-102-973-00	CERAMIC	100PF	5%	50V
C207	1-101-361-00	CERAMIC	150PF	5%	50V
C210	1-124-798-11	ELECT	1MF	20%	160V
C211	1-124-916-11	ELECT	22MF	20%	50V
C212	1-136-165-00	FILM	0.1MF	5%	50V
C213	1-136-165-00	FILM	0.1MF	5%	50V
C214	1-126-174-51	ELECT	10MF	20%	350V
C215	1-102-038-00	CERAMIC	0.001MF		500V
C216	1-102-050-00	CERAMIC	0.01MF		500V
C217	1-124-768-11	ELECT	4.7MF	20%	50V
C218	1-101-004-00	CERAMIC	0.01MF		50V
C219	1-136-165-00	FILM	0.1MF	5%	50V
C220	1-124-903-11	ELECT	1MF	20%	50V
C221	1-124-916-11	ELECT	22MF	20%	50V
C222	1-124-916-11	ELECT	22MF	20%	50V
C223	1-102-050-00	CERAMIC	0.01MF		500V
C225	1-124-916-11	ELECT	22MF	20%	50V
C226	1-101-004-00	CERAMIC	0.01MF		50V
C227	1-101-004-00	CERAMIC	0.01MF		50V

<CONNECTOR>

CAG-1	*1-564-507-11	PLUG, CONNECTOR 4P
CAG-2	*1-564-507-11	PLUG, CONNECTOR 4P
CAG-3	*1-564-507-11	PLUG, CONNECTOR 4P
CAG-4	*1-564-515-11	PLUG, CONNECTOR 12P
CAG-5	*1-564-516-11	PLUG, CONNECTOR 13P
CAG-6	*1-564-514-11	PLUG, CONNECTOR 11P
CAR-1	*1-564-507-11	PLUG, CONNECTOR 4P
CAR-2	*1-564-507-11	PLUG, CONNECTOR 4P
CAR-3	*1-564-507-11	PLUG, CONNECTOR 4P
CAR-4	*1-568-979-11	CONNECTOR 30P
CAGJ1	*1-526-575-00	SOCKET, PLUG 1P
CARJ1	*1-526-575-00	SOCKET, PLUG 1P

<DIODE>

D1	8-719-900-95	DIODE V09G
D2	8-719-900-95	DIODE V09G
D3	8-719-109-85	DIODE RD5.1ESB2
D4	8-719-911-19	DIODE 1SS119
D7	8-719-911-19	DIODE 1SS119
D8	8-719-911-19	DIODE 1SS119
D9	8-719-109-97	DIODE RD6.8ESB2
D12	8-719-911-19	DIODE 1SS119
D13	8-719-109-85	DIODE RD5.1ESB2
D14	8-719-109-97	DIODE RD6.8ESB2
D15	8-719-911-19	DIODE 1SS119
D101	8-719-901-83	DIODE 1SS83
D102	8-719-901-83	DIODE 1SS83
D103	8-719-911-19	DIODE 1SS119
D104	8-719-911-19	DIODE 1SS119
D105	8-719-901-83	DIODE 1SS83
D106	8-719-911-19	DIODE 1SS119
D107	8-719-911-19	DIODE 1SS119
D109	8-719-911-19	DIODE 1SS119
D110	8-719-109-51	DIODE RD2.0ESB2
D111	8-719-911-19	DIODE 1SS119
D112	8-719-911-19	DIODE 1SS119
D113	8-719-911-19	DIODE 1SS119
D114	8-719-110-36	DIODE RD13ESB2
D115	8-719-911-19	DIODE 1SS119
D117	8-719-911-19	DIODE 1SS119
D118	8-719-911-19	DIODE 1SS119
D120	8-719-911-19	DIODE 1SS119
D121	8-719-911-19	DIODE 1SS119
D122	8-719-911-19	DIODE 1SS119
D201	8-719-901-83	DIODE 1SS83
D202	8-719-901-83	DIODE 1SS83
D203	8-719-911-19	DIODE 1SS119
D204	8-719-911-19	DIODE 1SS119
D205	8-719-901-83	DIODE 1SS83
D206	8-719-911-19	DIODE 1SS119
D207	8-719-911-19	DIODE 1SS119
D209	8-719-911-19	DIODE 1SS119
D210	8-719-109-51	DIODE RD2.0ESB2
D211	8-719-911-19	DIODE 1SS119

CA(RG)

REF.NO.	PART NO.	DESCRIPTION	REMARK
D212	8-719-911-19	DIODE 1SS119	
D213	8-719-911-19	DIODE 1SS119	
D214	8-719-110-36	DIODE RD13ESB2	
D217	8-719-911-19	DIODE 1SS119	
D218	8-719-911-19	DIODE 1SS119	
		<IC>	
IC1	8-759-929-65	IC LM7912CT	
IC2	8-759-701-79	IC NJM7812FA	
IC3	8-759-708-05	IC NJM78L05A	
IC4	8-759-000-01	IC MC74HC4538AN	
IC5	8-759-984-55	IC MB675429	
IC6	8-759-916-71	IC SN74HC244AN	
IC7	8-759-916-12	IC SN74HC00AN	
IC8	8-759-503-91	IC TL082ACP	
IC101	8-749-923-01	IC VPH06	
IC102	8-759-503-91	IC TL082ACP	
IC104	8-749-923-15	IC TY885002A	
IC201	8-749-923-01	IC VPH06	
IC202	8-759-503-91	IC TL082ACP	
IC204	8-749-923-15	IC TY885002A	
		<COIL>	
L101	1-408-879-21	INDUCTOR 0.47UH	
L201	1-408-879-21	INDUCTOR 0.47UH	
		<TRANSISTOR>	
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2	8-729-900-89	TRANSISTOR DTC144ES	
Q3	8-729-900-89	TRANSISTOR DTC144ES	
Q4	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q9	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q10	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q12	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q14	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q15	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q18	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q19	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q101	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q102	8-729-140-96	TRANSISTOR 2SD774-34	
Q103	8-729-801-88	TRANSISTOR 2SA1381-E	
Q104	8-729-801-88	TRANSISTOR 2SA1381-E	
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q106	8-729-140-96	TRANSISTOR 2SD774-34	
Q107	8-729-801-88	TRANSISTOR 2SA1381-E	
Q108	8-729-900-65	TRANSISTOR DTA144ES	
Q109	8-729-900-65	TRANSISTOR DTA144ES	
Q110	8-729-900-89	TRANSISTOR DTC144ES	
Q111	8-729-105-74	TRANSISTOR 2SK523-M1	
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q115	8-729-801-88	TRANSISTOR 2SA1381-E	
Q201	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q202	8-729-140-96	TRANSISTOR 2SD774-34	
Q203	8-729-801-88	TRANSISTOR 2SA1381-E	
Q204	8-729-801-88	TRANSISTOR 2SA1381-E	
Q205	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q206	8-729-140-96	TRANSISTOR 2SD774-34	
Q207	8-729-801-88	TRANSISTOR 2SA1381-E	
Q208	8-729-900-65	TRANSISTOR DTA144ES	
Q209	8-729-900-65	TRANSISTOR DTA144ES	
Q210	8-729-900-89	TRANSISTOR DTC144ES	
Q211	8-729-105-74	TRANSISTOR 2SK523-M1	
Q212	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q215	8-729-801-88	TRANSISTOR 2SA1381-E	
		<RESISTOR>	
R1	1-247-807-31	CARBON 100 5% 1/4W	
R2	1-215-437-00	METAL 4.7K 1% 1/4W	
R3	1-249-441-11	CARBON 100K 5% 1/4W	
R4	1-215-449-00	METAL 15K 1% 1/4W	
R5	1-247-807-31	CARBON 100 5% 1/4W	
R6	1-249-438-11	CARBON 56K 5% 1/4W	
R7	1-249-437-11	CARBON 47K 5% 1/4W	
R8	1-247-807-31	CARBON 100 5% 1/4W	
R9	1-215-449-00	METAL 15K 1% 1/4W	
R10	1-215-447-00	METAL 12K 1% 1/4W	
R11	1-247-807-31	CARBON 100 5% 1/4W	
R12	1-247-807-31	CARBON 100 5% 1/4W	
R14	1-249-427-11	CARBON 6.8K 5% 1/4W	
R15	1-249-429-11	CARBON 10K 5% 1/4W	
R16	1-247-807-31	CARBON 100 5% 1/4W	
R17	1-249-423-11	CARBON 3.3K 5% 1/4W	
R18	1-249-426-11	CARBON 5.6K 5% 1/4W	
R19	1-215-413-00	METAL 470 1% 1/4W	
R20	1-215-455-00	METAL 27K 1% 1/4W	
R22	1-215-443-00	METAL 8.2K 1% 1/4W	
R23	1-215-447-00	METAL 12K 1% 1/4W	
R24	1-215-453-00	METAL 22K 1% 1/4W	
R25	1-215-457-00	METAL 33K 1% 1/4W	
R26	1-247-807-31	CARBON 100 5% 1/4W	
R27	1-247-807-31	CARBON 100 5% 1/4W	
R28	1-215-431-00	METAL 2.7K 1% 1/4W	
R29	1-249-429-11	CARBON 10K 5% 1/4W	
R30	1-215-469-00	METAL 100K 1% 1/4W	
R31	1-249-429-11	CARBON 10K 5% 1/4W	
R32	1-215-443-00	METAL 8.2K 1% 1/4W	
R33	1-215-443-00	METAL 8.2K 1% 1/4W	
R34	1-215-443-00	METAL 8.2K 1% 1/4W	
R35	1-247-887-00	CARBON 220K 5% 1/4W	
R36	1-247-887-00	CARBON 220K 5% 1/4W	
R37	1-247-887-00	CARBON 220K 5% 1/4W	
R38	1-249-441-11	CARBON 100K 5% 1/4W	
R39	1-215-469-00	METAL 100K 1% 1/4W	
R40	1-249-433-11	CARBON 22K 5% 1/4W	
R41	1-215-473-00	METAL 150K 1% 1/4W	
R42	1-249-433-11	CARBON 22K 5% 1/4W	
R43	1-247-807-31	CARBON 100 5% 1/4W	
R44	1-249-429-11	CARBON 10K 5% 1/4W	
R45	1-249-429-11	CARBON 10K 5% 1/4W	
R46	1-247-887-00	CARBON 220K 5% 1/4W	
R47	1-249-413-11	CARBON 470 5% 1/4W	
R48	1-249-439-11	CARBON 68K 5% 1/4W	
R101	1-215-401-11	METAL 150 1% 1/4W	
R102	1-215-401-11	METAL 150 1% 1/4W	
R103	1-215-473-00	METAL 150K 1% 1/4W	
R105	1-215-469-00	METAL 100K 1% 1/4W	
R106	1-215-465-00	METAL 68K 1% 1/4W	
R107	1-249-421-11	CARBON 2.2K 5% 1/4W	

CA(RG) CA(B)

REF.NO.	PART NO.	DESCRIPTION				REMARK
R108	1-249-403-11	CARBON	68	5%	1/4W	F
R109	1-215-429-00	METAL	2.2K	1%	1/4W	
R110	1-249-413-11	CARBON	470	5%	1/4W	F
R111	1-249-421-11	CARBON	2.2K	5%	1/4W	
R112	1-215-377-00	METAL	15	1%	1/4W	
R113	1-249-412-11	CARBON	390	5%	1/4W	F
R117	1-249-421-11	CARBON	2.2K	5%	1/4W	
R118	1-215-447-00	METAL	12K	1%	1/4W	
R119	1-215-433-00	METAL	3.3K	1%	1/4W	
R120	1-215-433-00	METAL	3.3K	1%	1/4W	
R122	1-215-441-00	METAL	6.8K	1%	1/4W	
R123	1-215-481-00	METAL	330K	1%	1/4W	
R124	1-215-433-00	METAL	3.3K	1%	1/4W	
R125	1-249-431-11	CARBON	15K	5%	1/4W	
R126	1-249-431-11	CARBON	15K	5%	1/4W	
R127	1-249-415-11	CARBON	680	5%	1/4W	
R128	1-247-807-31	CARBON	100	5%	1/4W	
R129	1-249-414-11	CARBON	560	5%	1/4W	F
R130	1-215-431-00	METAL	2.7K	1%	1/4W	
R131	1-202-549-00	SOLID	100	10%	1/2W	
R132	1-202-549-00	SOLID	100	10%	1/2W	
R133	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R134	1-249-429-11	CARBON	10K	5%	1/4W	
R135	1-215-469-00	METAL	100K	1%	1/4W	
R136	1-214-777-00	METAL	100K	1%	1/4W	
R137	1-215-445-00	METAL	10K	1%	1/4W	
R138	1-215-451-00	METAL	18K	1%	1/4W	
R139	1-249-421-11	CARBON	2.2K	5%	1/4W	
R140	1-215-453-00	METAL	22K	1%	1/4W	
R141	1-215-421-00	METAL	1K	1%	1/4W	
R142	1-249-417-11	CARBON	1K	5%	1/4W	
R143	1-247-903-00	CARBON	1M	5%	1/4W	
R144	1-249-427-11	CARBON	6.8K	5%	1/4W	
R145	1-247-807-31	CARBON	100	5%	1/4W	
R147	1-215-457-00	METAL	33K	1%	1/4W	
R148	1-249-410-11	CARBON	270	5%	1/4W	F
R149	1-247-807-31	CARBON	100	5%	1/4W	
R150	1-247-807-31	CARBON	100	5%	1/4W	
R160	1-249-423-11	CARBON	3.3K	5%	1/4W	
R170	1-247-735-11	SOLID	47	10%	1/2W	
R201	1-215-401-11	METAL	150	1%	1/4W	
R202	1-215-401-11	METAL	150	1%	1/4W	
R203	1-215-461-00	METAL	47K	1%	1/4W	
R204	1-215-469-00	METAL	100K	1%	1/4W	
R205	1-215-469-00	METAL	100K	1%	1/4W	
R206	1-215-471-00	METAL	120K	1%	1/4W	
R207	1-249-421-11	CARBON	2.2K	5%	1/4W	
R208	1-249-403-11	CARBON	68	5%	1/4W	F
R209	1-215-429-00	METAL	2.2K	1%	1/4W	
R210	1-249-410-11	CARBON	270	5%	1/4W	F
R211	1-249-421-11	CARBON	2.2K	5%	1/4W	
R212	1-215-377-00	METAL	15	1%	1/4W	
R213	1-249-409-11	CARBON	220	5%	1/4W	F
R217	1-249-421-11	CARBON	2.2K	5%	1/4W	
R218	1-215-447-00	METAL	12K	1%	1/4W	
R219	1-215-433-00	METAL	3.3K	1%	1/4W	
R220	1-215-433-00	METAL	3.3K	1%	1/4W	
R222	1-215-441-00	METAL	6.8K	1%	1/4W	
R223	1-215-481-00	METAL	330K	1%	1/4W	
R224	1-215-433-00	METAL	3.3K	1%	1/4W	
R225	1-249-431-11	CARBON	15K	5%	1/4W	
R226	1-249-431-11	CARBON	15K	5%	1/4W	
R227	1-249-415-11	CARBON	680	5%	1/4W	
R228	1-247-807-31	CARBON	100	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R229	1-249-414-11	CARBON	560	5%	1/4W	F
R230	1-215-431-00	METAL	2.7K	1%	1/4W	
R231	1-202-549-00	SOLID	100	10%	1/2W	
R232	1-202-549-00	SOLID	100	10%	1/2W	
R233	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R234	1-215-469-00	METAL	100K	1%	1/4W	
R235	1-249-429-11	CARBON	10K	5%	1/4W	
R236	1-214-777-00	METAL	100K	1%	1/4W	
R237	1-215-445-00	METAL	10K	1%	1/4W	
R238	1-215-451-00	METAL	18K	1%	1/4W	
R239	1-249-421-11	CARBON	2.2K	5%	1/4W	
R240	1-215-453-00	METAL	22K	1%	1/4W	
R241	1-215-421-00	METAL	1K	1%	1/4W	
R242	1-249-417-11	CARBON	1K	5%	1/4W	
R243	1-247-903-00	CARBON	1M	5%	1/4W	
R244	1-249-427-11	CARBON	6.8K	5%	1/4W	
R245	1-247-807-31	CARBON	100	5%	1/4W	
R247	1-247-807-31	CARBON	100	5%	1/4W	
R248	1-247-807-31	CARBON	100	5%	1/4W	
R260	1-249-423-11	CARBON	3.3K	5%	1/4W	
R270	1-247-735-11	SOLID	47	10%	1/2W	

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*A-1335-027-A CA (B) BOARD, COMPLETE
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<CAPACITOR>

C30	1-126-101-11	ELECT	100MF	20%	16V
C31	1-126-101-11	ELECT	100MF	20%	16V
C32	1-124-916-11	ELECT	22MF	20%	50V
C33	1-124-916-11	ELECT	22MF	20%	50V
C34	1-101-004-00	CERAMIC	0.01MF		50V
C35	1-124-903-11	ELECT	1MF	20%	50V
C36	1-124-903-11	ELECT	1MF	20%	50V
C37	1-124-916-11	ELECT	22MF	20%	50V
C38	1-101-004-00	CERAMIC	0.01MF		50V
C42	1-162-117-00	CERAMIC	100PF	10%	500V
C43	1-101-004-00	CERAMIC	0.01MF		50V
C44	1-124-798-11	ELECT	1MF	20%	160V
C45	1-101-004-00	CERAMIC	0.01MF		50V
C46	1-124-916-11	ELECT	22MF	20%	50V
C47	1-126-134-11	ELECT	4.7MF	20%	350V
C48	1-123-932-00	ELECT	4.7MF	20%	160V
C50	1-124-798-11	ELECT	1MF	20%	160V
C51	1-102-050-00	CERAMIC	0.01MF		500V
C52	1-102-050-00	CERAMIC	0.01MF		500V
C54	1-124-798-11	ELECT	1MF	20%	160V
C55	1-124-916-11	ELECT	22MF	20%	50V
C56	1-124-903-11	ELECT	1MF	20%	50V
C57	1-124-903-11	ELECT	1MF	20%	50V
C58	1-101-004-00	CERAMIC	0.01MF		50V
C301	1-124-282-00	ELECT	22MF	20%	16V
C302	1-124-910-11	ELECT	47MF	20%	50V
C303	1-126-101-11	ELECT	100MF	20%	16V
C304	1-126-101-11	ELECT	100MF	20%	16V
C305	1-124-916-11	ELECT	22MF	20%	50V
C306	1-102-973-00	CERAMIC	100PF	5%	50V
C307	1-101-361-00	CERAMIC	150PF	5%	50V
C310	1-124-798-11	ELECT	1MF	20%	160V
C311	1-124-916-11	ELECT	22MF	20%	50V
C312	1-136-165-00	FILM	0.1MF	5%	50V
C313	1-136-165-00	FILM	0.1MF	5%	50V

CA(B)

REF.NO.	PART NO.	DESCRIPTION			REMARK
C314	1-126-174-51	ELECT	10MF	20%	350V
C315	1-102-038-00	CERAMIC	0.001MF		500V
C316	1-102-050-00	CERAMIC	0.01MF		500V
C317	1-124-768-11	ELECT	4.7MF	20%	50V
C318	1-101-004-00	CERAMIC	0.01MF		50V
C319	1-136-165-00	FILM	0.1MF	5%	50V
C320	1-124-903-11	ELECT	1MF	20%	50V
C321	1-124-916-11	ELECT	22MF	20%	50V
C322	1-124-916-11	ELECT	22MF	20%	50V
C323	1-102-050-00	CERAMIC	0.01MF		500V
C324	1-102-973-00	CERAMIC	100PF	5%	50V
C325	1-124-916-11	ELECT	22MF	20%	50V
C326	1-101-004-00	CERAMIC	0.01MF		50V
C327	1-101-004-00	CERAMIC	0.01MF		50V
C350	1-126-101-11	ELECT	100MF	20%	16V
C351	1-126-101-11	ELECT	100MF	20%	16V
		<CONNECTOR>			
CAB-1	*1-564-507-11	PLUG, CONNECTOR 4P			
CAB-2	*1-564-507-11	PLUG, CONNECTOR 4P			
CAB-3	*1-564-507-11	PLUG, CONNECTOR 4P			
CAB-7	*1-564-516-11	PLUG, CONNECTOR 13P			
CAB-8	*1-564-507-11	PLUG, CONNECTOR 4P			
CABJ1	*1-526-575-00	SOCKET, PLUG 1P			
		<DIODE>			
D30	8-719-109-66	DIODE RD3.3ESB2			
D31	8-719-901-83	DIODE 1SS83			
D32	8-719-901-83	DIODE 1SS83			
D33	8-719-110-31	DIODE RD12ESB2			
D34	8-719-110-31	DIODE RD12ESB2			
D35	8-719-900-95	DIODE V09G			
D36	8-719-900-95	DIODE V09G			
D40	8-719-900-95	DIODE V09G			
D41	8-719-911-19	DIODE 1SS119			
D301	8-719-901-83	DIODE 1SS83			
D302	8-719-901-83	DIODE 1SS83			
D303	8-719-911-19	DIODE 1SS119			
D304	8-719-911-19	DIODE 1SS119			
D305	8-719-901-83	DIODE 1SS83			
D306	8-719-911-19	DIODE 1SS119			
D307	8-719-911-19	DIODE 1SS119			
D309	8-719-911-19	DIODE 1SS119			
D310	8-719-109-51	DIODE RD2.0ESB2			
D311	8-719-911-19	DIODE 1SS119			
D312	8-719-911-19	DIODE 1SS119			
D313	8-719-911-19	DIODE 1SS119			
D314	8-719-110-36	DIODE RD13ESB2			
D315	8-719-109-66	DIODE RD3.3ESB2			
D316	8-719-911-19	DIODE 1SS119			
D317	8-719-911-19	DIODE 1SS119			
D318	8-719-911-19	DIODE 1SS119			
		<IC>			
IC301	8-749-923-01	IC VPH06			
IC302	8-759-503-91	IC TL082ACP			
IC304	8-749-923-15	IC TY885002A			
IC305	8-749-923-25	IC TY911504			
		<COIL>			

REF.NO.	PART NO.	DESCRIPTION			REMARK
L301	1-408-879-21	INDUCTOR	0.47UH		
		<TRANSISTOR>			
Q30	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q31	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q32	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q33	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q34	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q35	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q36	8-729-820-82	TRANSISTOR 2SA1208-S			
Q37	8-729-820-82	TRANSISTOR 2SA1208-S			
Q38	8-729-255-12	TRANSISTOR 2SC2551-O			
Q41	8-729-903-68	TRANSISTOR 2SD982			
Q42	8-729-801-88	TRANSISTOR 2SA1381-E			
Q43	8-729-801-88	TRANSISTOR 2SA1381-E			
Q44	8-729-903-68	TRANSISTOR 2SD982			
Q45	8-729-140-96	TRANSISTOR 2SD774-34			
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q302	8-729-140-96	TRANSISTOR 2SD774-34			
Q303	8-729-801-88	TRANSISTOR 2SA1381-E			
Q304	8-729-801-88	TRANSISTOR 2SA1381-E			
Q305	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q306	8-729-140-96	TRANSISTOR 2SD774-34			
Q307	8-729-801-88	TRANSISTOR 2SA1381-E			
Q308	8-729-900-65	TRANSISTOR DTA144ES			
Q309	8-729-900-65	TRANSISTOR DTA144ES			
Q310	8-729-900-89	TRANSISTOR DTC144ES			
Q311	8-729-105-74	TRANSISTOR 2SK523-M1			
Q312	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q313	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q314	8-729-900-89	TRANSISTOR DTC144ES			
Q315	8-729-801-88	TRANSISTOR 2SA1381-E			
		<RESISTOR>			
R50	1-249-421-11	CARBON	2.2K	5% 1/4W	
R51	1-249-424-11	CARBON	3.9K	5% 1/4W	
R52	1-249-393-11	CARBON	10	5% 1/4W	
R53	1-249-424-11	CARBON	3.9K	5% 1/4W	
R54	1-215-437-00	METAL	4.7K	1% 1/4W	
R55	1-215-439-00	METAL	5.6K	1% 1/4W	
R56	1-215-467-00	METAL	82K	1% 1/4W	
R57	1-247-807-31	CARBON	100	5% 1/4W	
R58	1-247-807-31	CARBON	100	5% 1/4W	
R59	1-249-423-11	CARBON	3.3K	5% 1/4W	
R60	1-247-807-31	CARBON	100	5% 1/4W	
R61	1-249-423-11	CARBON	3.3K	5% 1/4W	
R62	1-249-425-11	CARBON	4.7K	5% 1/4W	
R63	1-249-437-11	CARBON	47K	5% 1/4W	
R65	1-249-425-11	CARBON	4.7K	5% 1/4W	
R66	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R67	1-249-397-11	CARBON	22	5% 1/4W	
R68	1-249-397-11	CARBON	22	5% 1/4W	F
R74	1-249-429-11	CARBON	10K	5% 1/4W	F
R75	1-249-429-11	CARBON	10K	5% 1/4W	F
R76	1-202-719-00	SOLID	1M	10% 1/2W	
R77	1-247-903-00	CARBON	1M	5% 1/4W	
R79	1-249-397-11	CARBON	22	5% 1/4W	F
R80	1-249-437-11	CARBON	47K	5% 1/4W	
R81	1-249-441-11	CARBON	100K	5% 1/4W	
R82	1-249-437-11	CARBON	47K	5% 1/4W	
R83	1-249-435-11	CARBON	33K	5% 1/4W	

CA(B) **DM** **DD**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R84	1-249-476-11	CARBON	1.5	5%	1/2W	F
R85	1-249-433-11	CARBON	22K	5%	1/4W	
R86	1-247-903-00	CARBON	1M	5%	1/4W	
R87	1-249-425-11	CARBON	4.7K	5%	1/4W	
R301	1-215-401-11	METAL	150	1%	1/4W	
R302	1-215-401-11	METAL	150	1%	1/4W	
R303	1-215-461-00	METAL	47K	1%	1/4W	
R304	1-215-469-00	METAL	100K	1%	1/4W	
R305	1-215-469-00	METAL	100K	1%	1/4W	
R306	1-215-473-00	METAL	150K	1%	1/4W	
R307	1-249-421-11	CARBON	2.2K	5%	1/4W	
R308	1-249-403-11	CARBON	68	5%	1/4W	
R309	1-215-429-00	METAL	2.2K	1%	1/4W	
R310	1-247-811-31	CARBON	150	5%	1/4W	F
R311	1-249-421-11	CARBON	2.2K	5%	1/4W	
R312	1-215-377-00	METAL	15	1%	1/4W	
R313	1-247-811-31	CARBON	150	5%	1/4W	F
R317	1-249-421-11	CARBON	2.2K	5%	1/4W	
R318	1-215-447-00	METAL	12K	1%	1/4W	
R319	1-215-433-00	METAL	3.3K	1%	1/4W	
R320	1-215-433-00	METAL	3.3K	1%	1/4W	
R322	1-215-441-00	METAL	6.8K	1%	1/4W	
R323	1-215-481-00	METAL	330K	1%	1/4W	
R324	1-215-433-00	METAL	3.3K	1%	1/4W	
R325	1-249-431-11	CARBON	15K	5%	1/4W	
R326	1-249-431-11	CARBON	15K	5%	1/4W	
R327	1-249-415-11	CARBON	680	5%	1/4W	
R328	1-247-807-31	CARBON	100	5%	1/4W	
R329	1-249-414-11	CARBON	560	5%	1/4W	F
R330	1-215-431-00	METAL	2.7K	1%	1/4W	
R331	1-202-549-00	SOLID	100	10%	1/2W	
R332	1-202-549-00	SOLID	100	10%	1/2W	
R333	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R334	1-215-469-00	METAL	100K	1%	1/4W	
R335	1-249-429-11	CARBON	10K	5%	1/4W	
R336	1-214-777-00	METAL	100K	1%	1/4W	
R337	1-215-445-00	METAL	10K	1%	1/4W	
R338	1-215-451-00	METAL	18K	1%	1/4W	
R339	1-249-421-11	CARBON	2.2K	5%	1/4W	
R340	1-215-453-00	METAL	22K	1%	1/4W	
R341	1-215-421-00	METAL	1K	1%	1/4W	
R342	1-249-417-11	CARBON	1K	5%	1/4W	
R343	1-247-903-00	CARBON	1M	5%	1/4W	
R344	1-249-427-11	CARBON	6.8K	5%	1/4W	
R345	1-247-807-31	CARBON	100	5%	1/4W	
R347	1-247-807-31	CARBON	100	5%	1/4W	
R348	1-247-903-00	CARBON	1M	5%	1/4W	
R349	1-249-423-11	CARBON	3.3K	5%	1/4W	
R350	1-247-807-31	CARBON	100	5%	1/4W	
R351	1-215-447-00	METAL	12K	1%	1/4W	
R352	1-249-421-11	CARBON	2.2K	5%	1/4W	
R353	1-249-403-11	CARBON	68	5%	1/4W	F
R356	1-215-457-00	METAL	33K	1%	1/4W	
R360	1-249-423-11	CARBON	3.3K	5%	1/4W	
R370	1-247-735-11	SOLID	47	10%	1/2W	

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*1-639-936-11 DM BOARD
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<CAPACITOR>

C1	1-124-556-11	ELECT	2200MF	20%	16V
C2	1-124-556-11	ELECT	2200MF	20%	16V

<CONNECTOR>

DM-1	*1-568-982-11	CONNECTOR, FEMALE 96P	
DM-2	*1-568-982-11	CONNECTOR, FEMALE 96P	
DM-3	*1-568-982-11	CONNECTOR, FEMALE 96P	
DM-4	*1-568-982-11	CONNECTOR, FEMALE 96P	
DM-5	*1-568-982-11	CONNECTOR, FEMALE 96P	
DM-6	*1-564-509-11	PLUG, CONNECTOR 6P	
DM-7	*1-564-515-11	PLUG, CONNECTOR 12P	
DM-8	*1-564-514-11	PLUG, CONNECTOR 11P	
DM-9	*1-564-509-11	PLUG, CONNECTOR 6P	
DM-10	*1-564-516-11	PLUG, CONNECTOR 13P	
DM-11	*1-564-509-11	PLUG, CONNECTOR 6P	
DM-18	1-506-348-XX	PIN, CONNECOTR 5P	
DM-19	*1-506-348-XX	PIN, CONNECTOR 6P	
DM-20	1-506-348-XX	PIN, CONNECTOR 4P	
DM-21	1-506-348-XX	PIN, CONNECTOR 3P	
DM-22	*1-564-507-11	PLUG, CONNECTOR 4P	
DM-23	1-508-742-00	PIN, CONNECTOR 3P	
DM-24	1-508-742-00	PIN, CONNECTOR 3P	
DM-25	*1-564-514-11	PLUG, CONNECTOR 11P	
DM-27	*1-564-507-11	PLUG, CONNECTOR 4P	
DM-28	*1-564-508-11	PLUG, CONNECTOR 5P	
DM-29	*1-564-516-11	PLUG, CONNECTOR 13P	
DM-31	*1-564-514-11	PLUG, CONNECTOR 11P	
DM-33	*1-568-982-11	CONNECTOR, FEMALE 96P	
DM-34	*1-568-985-11	CONNECTOR, FEMALE 64P	
DM-35	*1-564-507-11	PLUG, CONNECTOR 4P	
DM-38	*1-564-505-11	PLUG, CONNECTOR 2P	

<RESISTOR>

R1	1-215-908-00	METAL OXIDE	33	5%	3W	F
R2	1-215-908-00	METAL OXIDE	33	5%	3W	F
R3	1-216-483-11	METAL OXIDE	2.7K	5%	3W	F
R4	1-216-483-11	METAL OXIDE	2.7K	5%	3W	F
R5	1-216-475-11	METAL OXIDE	120	5%	3W	F

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*A-1346-022-A DD BOARD, COMPLETE
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<CAPACITOR>

C19	1-124-120-11	ELECT	220MF	20%	16V
C20	1-124-120-11	ELECT	220MF	20%	16V
C21	1-124-907-11	ELECT	10MF	20%	50V
C22	1-124-907-11	ELECT	10MF	20%	50V

<CONNECTOR>

DD-1	*1-568-984-11	CONNECTOR, MALE 96P

<IC>

IC4	8-759-114-06	IC UPC814G2-1

<COIL>

L1	1-459-155-00	COIL (WITH CORE) 45UH
L2	1-459-155-00	COIL (WITH CORE) 45UH

DD **DB**

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<TRANSISTOR>			
Q1	8-729-205-96	TRANSISTOR 2SC3668-O			
Q2	8-729-205-95	TRANSISTOR 2SA1428-Y			
Q11	8-729-903-82	TRANSISTOR FMW2			
Q12	8-729-920-59	TRANSISTOR IMX2			
Q13	8-729-904-04	TRANSISTOR FMS2			
Q14	8-729-903-10	TRANSISTOR FMW1			
Q15	8-729-920-59	TRANSISTOR IMX2			
Q16	8-729-902-96	TRANSISTOR FMS1			
Q17	8-729-902-96	TRANSISTOR FMS1			
Q18	8-729-902-96	TRANSISTOR FMS1			
Q19	8-729-903-82	TRANSISTOR FMW2			
Q20	8-729-920-59	TRANSISTOR IMX2			
Q21	8-729-903-10	TRANSISTOR FMW1			
Q22	8-729-904-04	TRANSISTOR FMS2			
Q23	8-729-920-59	TRANSISTOR IMX2			
Q24	8-729-902-96	TRANSISTOR FMS1			
Q25	8-729-902-96	TRANSISTOR FMS1			
Q26	8-729-902-96	TRANSISTOR FMS1			
Q27	8-729-903-82	TRANSISTOR FMW2			
Q28	8-729-920-59	TRANSISTOR IMX2			
Q29	8-729-903-10	TRANSISTOR FMW1			
Q30	8-729-904-04	TRANSISTOR FMS2			
Q31	8-729-920-59	TRANSISTOR IMX2			
Q32	8-729-902-96	TRANSISTOR FMS1			
Q33	8-729-902-96	TRANSISTOR FMS1			
Q34	8-729-902-96	TRANSISTOR FMS1			
Q35	8-729-920-59	TRANSISTOR IMX2			
Q36	8-729-903-10	TRANSISTOR FMW1			
Q37	8-729-903-10	TRANSISTOR FMW1			
		<RESISTOR>			
R26	1-216-619-11	METAL CHIP	47	0.50% 1/10W	
R27	1-216-619-11	METAL CHIP	47	0.50% 1/10W	
R51	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R52	1-216-673-11	METAL CHIP	8.2K	0.50% 1/10W	
R53	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	
R54	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	
R55	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R56	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R57	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R58	1-216-639-11	METAL CHIP	330	0.50% 1/10W	
R59	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R60	1-216-639-11	METAL CHIP	330	0.50% 1/10W	
R61	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R62	1-216-615-11	METAL CHIP	33	0.50% 1/10W	
R63	1-216-615-11	METAL CHIP	33	0.50% 1/10W	
R64	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R65	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R66	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R67	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R68	1-216-639-11	METAL CHIP	330	0.50% 1/10W	
R69	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R70	1-216-615-11	METAL CHIP	33	0.50% 1/10W	
R71	1-216-615-11	METAL CHIP	33	0.50% 1/10W	
R72	1-216-639-11	METAL CHIP	330	0.50% 1/10W	
R73	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R74	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R75	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R76	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R77	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R78	1-216-639-11	METAL CHIP	330	0.50% 1/10W	
R79	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R80	1-216-639-11	METAL CHIP	330	0.50% 1/10W	
R81	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R82	1-216-615-11	METAL CHIP	33	0.50% 1/10W	
R83	1-216-615-11	METAL CHIP	33	0.50% 1/10W	
R84	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R85	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R86	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R87	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R88	1-216-635-11	METAL CHIP	220	0.50% 1/10W	
R89	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	
R90	1-216-647-11	METAL CHIP	680	0.50% 1/10W	
R91	1-216-647-11	METAL CHIP	680	0.50% 1/10W	
R92	1-216-665-11	METAL CHIP	3.9K	0.50% 1/10W	
R93	1-216-663-11	METAL CHIP	3.3K	0.50% 1/10W	
R94	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R95	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R96	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R97	1-216-655-11	METAL CHIP	1.5K	0.50% 1/10W	
R98	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	
R99	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R100	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R101	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R102	1-216-655-11	METAL CHIP	1.5K	0.50% 1/10W	
R103	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R104	1-216-663-11	METAL CHIP	3.3K	0.50% 1/10W	
R105	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R106	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R107	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R108	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R110	1-216-697-11	METAL CHIP	82K	0.50% 1/10W	
R111	1-216-661-11	METAL CHIP	2.7K	0.50% 1/10W	
R112	1-216-295-00	METAL GLAZE	0	5% 1/10W	
R113	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R114	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R115	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
		<VARIABLE RESISTOR>			
RV1	1-237-505-21	RES, ADJ, CERMET 50K			
RV2	1-237-501-21	RES, ADJ, CERMET 2K			
		**********			
	*A-1346-189-A	DB BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C1501	1-126-157-11	ELECT	10MF	20% 16V	
C1502	1-126-157-11	ELECT	10MF	20% 16V	
C1503	1-126-157-11	ELECT	10MF	20% 16V	
C1504	1-126-157-11	ELECT	10MF	20% 16V	
C1505	1-126-157-11	ELECT	10MF	20% 16V	
C1506	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1507	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1508	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1509	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1510	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1511	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1512	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1513	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1514	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1515	1-163-031-11	CERAMIC CHIP	0.01MF	50V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1516	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1517	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1518	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1519	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1520	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1521	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1522	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1523	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1524	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1525	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1526	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1527	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1528	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1529	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1530	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1531	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1532	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1533	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1534	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1535	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1536	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1537	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1538	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1539	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1540	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1541	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1542	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1543	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1544	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1545	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1546	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1547	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1548	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1549	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1550	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1551	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1552	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1553	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1554	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1555	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1556	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1557	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1558	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1559	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1560	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1561	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1562	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1563	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1564	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1565	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1566	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1567	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1568	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1569	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1570	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1571	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1572	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1573	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1574	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1575	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1577	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1578	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1580	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1581	1-163-031-11	CERAMIC CHIP 0.01MF	50V

REF.NO.	PART NO.	DESCRIPTION		REMARK
C1582	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C1583	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C1584	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
		<DIODE>		
D1503	8-719-800-76	DIODE 1SS226		
D1504	8-719-800-76	DIODE 1SS226		
D1505	8-719-800-76	DIODE 1SS226		
D1506	8-719-800-76	DIODE 1SS226		
D1507	8-719-800-76	DIODE 1SS226		
D1508	8-719-800-76	DIODE 1SS226		
		<CONNECTOR>		
DB1501*	1-568-984-11	CONNECTOR, MALE 96P		
		<IC>		
IC1501	8-759-926-48	IC SN74HC244ANS		
IC1502	8-759-926-48	IC SN74HC244ANS		
IC1503	8-759-926-48	IC SN74HC244ANS		
IC1504	8-759-926-48	IC SN74HC244ANS		
IC1505	8-759-926-11	IC SN74HC138ANS		
IC1506	8-759-926-11	IC SN74HC138ANS		
IC1507	8-759-926-11	IC SN74HC138ANS		
IC1508	8-759-926-11	IC SN74HC138ANS		
IC1509	8-759-926-11	IC SN74HC138ANS		
IC1510	8-759-926-11	IC SN74HC138ANS		
IC1511	8-759-995-64	IC MB86023		
IC1512	8-759-995-64	IC MB86023		
IC1513	8-759-995-64	IC MB86023		
IC1514	8-759-995-64	IC MB86023		
IC1515	8-759-995-64	IC MB86023		
IC1516	8-759-995-64	IC MB86023		
IC1517	8-759-995-64	IC MB86023		
IC1518	8-759-995-64	IC MB86023		
IC1519	8-759-995-64	IC MB86023		
IC1520	8-759-995-64	IC MB86023		
IC1521	8-759-995-64	IC MB86023		
IC1522	8-759-995-64	IC MB86023		
IC1523	8-759-995-64	IC MB86023		
IC1524	8-759-995-64	IC MB86023		
IC1525	8-759-995-64	IC MB86023		
IC1526	8-759-995-64	IC MB86023		
IC1527	8-759-995-64	IC MB86023		
IC1528	8-759-995-64	IC MB86023		
IC1529	8-759-995-64	IC MB86023		
IC1530	8-759-995-64	IC MB86023		
IC1531	8-759-995-64	IC MB86023		
IC1532	8-759-995-64	IC MB86023		
IC1533	8-759-995-64	IC MB86023		
IC1534	8-759-995-64	IC MB86023		
IC1535	8-759-995-64	IC MB86023		
IC1536	8-759-995-64	IC MB86023		
IC1537	8-759-995-64	IC MB86023		
IC1538	8-759-995-64	IC MB86023		
IC1539	8-759-995-64	IC MB86023		
IC1540	8-759-995-64	IC MB86023		
IC1541	8-759-995-64	IC MB86023		
IC1542	8-759-995-64	IC MB86023		
IC1543	8-759-995-64	IC MB86023		
IC1544	8-759-995-64	IC MB86023		

DB

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1545	8-759-995-64	IC MB86023	
IC1546	8-759-995-64	IC MB86023	
IC1547	8-759-100-96	IC UPC4558G2	
IC1548	8-759-100-96	IC UPC4558G2	
IC1549	8-759-114-06	IC UPC814G2-1	
IC1550	8-759-114-06	IC UPC814G2-1	
IC1551	8-759-114-06	IC UPC814G2-1	
IC1552	8-759-908-15	IC TL431CLP	
		<COIL>	
L1501	1-459-155-00	COIL (WITH CORE) 45UH	
L1502	1-459-155-00	COIL (WITH CORE) 45UH	
		<TRANSISTOR>	
Q1501	8-729-205-96	TRANSISTOR 2SC3668-O	
Q1502	8-729-205-95	TRANSISTOR 2SA1428-Y	
		<RESISTOR>	
R1501	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1502	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1503	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1504	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1505	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1506	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1507	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1508	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1509	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1510	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1511	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1512	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1513	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1514	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1515	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1516	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1517	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1518	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1519	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1520	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1521	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1522	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1523	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1524	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1525	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1526	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1527	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1528	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1529	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1530	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1531	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1532	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1533	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1534	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1535	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1536	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R1537	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	
R1538	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	
R1539	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	
R1540	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1541	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R1542	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R1543	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R1544	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R1545	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1546	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R1547	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R1548	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R1549	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R1550	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1551	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R1552	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1553	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1554	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1555	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1556	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1557	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1558	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1559	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R1560	1-216-645-11	METAL CHIP 560 0.50% 1/10W	
R1561	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R1562	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R1563	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1565	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1566	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1567	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1568	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1569	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1570	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1571	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R1572	1-216-697-11	METAL CHIP 82K 0.50% 1/10W	
R1573	1-216-697-11	METAL CHIP 82K 0.50% 1/10W	
R1574	1-216-697-11	METAL CHIP 82K 0.50% 1/10W	
R1575	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1576	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R1577	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1578	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1579	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1580	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1581	1-216-676-11	METAL CHIP 11K 0.50% 1/10W	
R1582	1-216-676-11	METAL CHIP 11K 0.50% 1/10W	
R1583	1-216-676-11	METAL CHIP 11K 0.50% 1/10W	
R1584	1-216-697-11	METAL CHIP 82K 0.50% 1/10W	
R1585	1-216-697-11	METAL CHIP 82K 0.50% 1/10W	
R1586	1-216-697-11	METAL CHIP 82K 0.50% 1/10W	
R1587	1-216-697-11	METAL CHIP 82K 0.50% 1/10W	
R1588	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1589	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R1590	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R1591	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R1592	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R1593	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R1594	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R1595	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1596	1-216-685-11	METAL CHIP 27K 0.50% 1/10W	
R1597	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1598	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1599	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1601	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R1602	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R1603	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R1604	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R1606	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R1607	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R1608	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R1609	1-216-627-11	METAL CHIP 100 0.50% 1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1610	1-216-659-11	METAL CHIP	2.2K	0.50% 1/10W	
R1611	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1612	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1613	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1614	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1615	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1616	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1617	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1618	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1619	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1620	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1621	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1622	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1623	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1624	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1625	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1626	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1627	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1628	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1629	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1630	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1631	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1632	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1633	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1634	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1635	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1636	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1637	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1638	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1639	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1640	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1641	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1642	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1643	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1644	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1645	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1646	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1647	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1648	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1649	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1650	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1651	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1652	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1653	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1654	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1655	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1656	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1657	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1658	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1659	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1660	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1661	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1662	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1663	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1664	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1665	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1666	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1667	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1668	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1669	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1670	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1671	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1672	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1673	1-216-627-11	METAL CHIP	100	0.50% 1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1674	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1675	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1676	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1677	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1678	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1679	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1680	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1681	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1682	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1683	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1684	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1685	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1686	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1687	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1688	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1689	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1690	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1691	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1692	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1693	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1694	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1695	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1696	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1697	1-216-033-00	METAL GLAZE	220	5% 1/10W	
R1698	1-216-661-11	METAL CHIP	2.7K	0.50% 1/10W	
R1699	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1700	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1701	1-216-661-11	METAL CHIP	2.7K	0.50% 1/10W	
R1702	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1703	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1704	1-216-661-11	METAL CHIP	2.7K	0.50% 1/10W	
R1705	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1706	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1707	1-216-661-11	METAL CHIP	2.7K	0.50% 1/10W	
R1708	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1709	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1710	1-216-661-11	METAL CHIP	2.7K	0.50% 1/10W	
R1711	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1712	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1713	1-216-661-11	METAL CHIP	2.7K	0.50% 1/10W	
R1714	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1715	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1716	1-216-679-11	METAL CHIP	15K	0.50% 1/10W	
R1717	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1718	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1719	1-216-679-11	METAL CHIP	15K	0.50% 1/10W	
R1720	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1721	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1722	1-216-679-11	METAL CHIP	15K	0.50% 1/10W	
R1723	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1724	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1725	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1726	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1727	1-216-627-11	METAL CHIP	100	0.50% 1/10W	
R1728	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	
R1729	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	
R1801	1-216-691-11	METAL CHIP	47K	0.50% 1/10W	
R1802	1-216-691-11	METAL CHIP	47K	0.50% 1/10W	
R1803	1-216-691-11	METAL CHIP	47K	0.50% 1/10W	
R1804	1-216-671-11	METAL CHIP	6.8K	0.50% 1/10W	
R1805	1-216-101-00	METAL GLAZE	150K	5% 1/10W	
R1806	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1807	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	

DB **E**

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1808	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1809	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1810	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1811	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1812	1-216-659-11	METAL CHIP	2.2K	0.50% 1/10W	
R1813	1-216-659-11	METAL CHIP	2.2K	0.50% 1/10W	
R1814	1-216-645-11	METAL CHIP	560	0.50% 1/10W	
R1815	1-216-663-11	METAL CHIP	3.3K	0.50% 1/10W	
R1816	1-216-655-11	METAL CHIP	1.5K	0.50% 1/10W	
R1817	1-216-655-11	METAL CHIP	1.5K	0.50% 1/10W	
R1818	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1819	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1820	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R1821	1-216-683-11	METAL CHIP	22K	0.50% 1/10W	
R2000	1-216-619-11	METAL CHIP	47	0.50% 1/10W	
R2001	1-216-619-11	METAL CHIP	47	0.50% 1/10W	

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*A-1346-190-A E BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C1	1-126-899-11	ELECT	3900MF	20%	16V
C2	1-126-899-11	ELECT	3900MF	20%	16V
C3	1-126-899-11	ELECT	3900MF	20%	16V
C4	1-102-824-00	CERAMIC	470PF	5%	50V
C5	1-136-153-00	FILM	0.01MF	5%	50V
C6	1-102-824-00	CERAMIC	470PF	5%	50V
C7	1-102-824-00	CERAMIC	470PF	5%	50V
C8	1-136-153-00	FILM	0.01MF	5%	50V
C9	1-102-824-00	CERAMIC	470PF	5%	50V
C10	1-136-153-00	FILM	0.01MF	5%	50V
C11	1-102-824-00	CERAMIC	470PF	5%	50V
C12	1-102-824-00	CERAMIC	470PF	5%	50V
C13	1-130-908-00	FILM	0.0039MF	3%	1.6KV
C14	1-130-908-00	FILM	0.0039MF	3%	1.6KV
C15	1-124-585-11	ELECT	3300MF	20%	10V
C16	1-124-585-11	ELECT	3300MF	20%	10V
C17	1-123-935-00	ELECT	33MF	20%	160V
C18	1-129-996-00	FILM	0.22MF	20%	630V
C19	1-124-585-11	ELECT	3300MF	20%	10V
C21	1-136-945-11	FILM	8.2MF	5%	200V
C22	1-136-945-11	FILM	8.2MF	5%	200V
C23	1-136-945-11	FILM	8.2MF	5%	200V
C24	1-136-945-11	FILM	8.2MF	5%	200V
C30	1-136-613-11	FILM	0.0068MF	3%	2KV
C31	1-106-391-12	MYLAR	0.1MF	10%	200V
C32	1-124-907-11	ELECT	10MF	20%	50V
C35	1-102-244-00	CERAMIC	220PF	10%	500V
C36	1-164-747-11	CERAMIC	330PF	15%	1.5KV
C37	1-164-747-11	CERAMIC	330PF	15%	1.5KV
C38	1-164-747-11	CERAMIC	330PF	15%	1.5KV
C101	1-102-973-00	CERAMIC	100PF	5%	50V
C102	1-136-159-00	FILM	0.033MF	5%	50V
C104	1-136-165-00	FILM	0.1MF	5%	50V
C105	1-136-165-00	FILM	0.1MF	5%	50V
C106	1-126-101-11	ELECT	100MF	20%	16V
C109	1-124-903-11	ELECT	1MF	20%	50V
C110	1-126-101-11	ELECT	100MF	20%	16V
C111	1-126-101-11	ELECT	100MF	20%	16V
C112	1-126-101-11	ELECT	100MF	20%	16V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C113	1-124-916-11	ELECT	22MF	20%	50V
C114	1-124-499-11	ELECT	1MF	20%	50V
C115	1-136-153-00	FILM	0.01MF	5%	50V
C116	1-130-475-00	MYLAR	0.0022MF	5%	50V
C117	1-102-973-00	CERAMIC	100PF	5%	50V
C118	1-136-165-00	FILM	0.1MF	5%	50V
C119	1-126-101-11	ELECT	100MF	20%	16V
C120	1-123-939-00	ELECT	10MF	20%	200V
C121	1-136-159-00	FILM	0.033MF	5%	50V
C122	1-123-024-21	ELECT	33MF		160V
C123	1-123-024-21	ELECT	33MF		160V
C124	1-125-499-11	ELECT(BLOCK)	220MF	20%	200V
C125	1-136-153-00	FILM	0.01MF	5%	50V
C126	1-130-471-00	MYLAR	0.001MF	5%	50V
C128	1-123-939-00	ELECT	10MF	20%	200V
C129	1-123-939-00	ELECT	10MF	20%	200V
C130	1-124-120-11	ELECT	220MF	20%	16V
C131	1-124-120-11	ELECT	220MF	20%	16V
C132	1-123-024-21	ELECT	33MF		160V
C133	1-124-499-11	ELECT	1MF	20%	50V
C134	1-124-478-11	ELECT	100MF	20%	25V
C135	1-124-478-11	ELECT	100MF	20%	25V
C136	1-124-916-11	ELECT	22MF	20%	50V
C137	1-102-973-00	CERAMIC	100PF	5%	50V
C138	1-124-907-11	ELECT	10MF	20%	50V
C139	1-124-360-00	ELECT	1000MF	20%	16V
C140	1-136-169-00	FILM	0.22MF	5%	50V
C141	1-130-471-00	MYLAR	0.001MF	5%	50V
C142	1-125-499-11	ELECT(BLOCK)	220MF	20%	200V
C143	1-102-824-00	CERAMIC	470PF	5%	50V
C144	1-136-165-00	FILM	0.1MF	5%	50V
C145	1-136-153-00	FILM	0.01MF	5%	50V
C146	1-136-173-00	FILM	0.47MF	5%	50V
C147	1-136-173-00	FILM	0.47MF	5%	50V
C148	1-126-101-11	ELECT	100MF	20%	16V
C149	1-124-907-11	ELECT	10MF	20%	50V
C150	1-130-471-00	MYLAR	0.001MF	5%	50V
C151	1-124-903-11	ELECT	1MF	20%	50V
C152	1-136-165-00	FILM	0.1MF	5%	50V
C153	1-124-034-51	ELECT	33MF	20%	16V
C154	1-136-165-00	FILM	0.1MF	5%	50V
C155	1-136-153-00	FILM	0.01MF	5%	50V
C156	1-136-165-00	FILM	0.1MF	5%	50V
C157	1-136-157-00	FILM	0.022MF	5%	50V
C158	1-124-046-00	ELECT	10MF		160V
C159	1-124-808-51	ELECT	10MF	20%	200V
C160	1-136-111-00	FILM	1MF	5%	200V
C161	1-124-903-11	ELECT	1MF	20%	50V
C162	1-136-111-00	FILM	1MF	5%	200V
C163	1-124-907-11	ELECT	10MF	20%	50V
C164	1-124-907-11	ELECT	10MF	20%	50V
C165	1-124-907-11	ELECT	10MF	20%	50V
C166	1-124-907-11	ELECT	10MF	20%	50V
C167	1-102-824-00	CERAMIC	470PF	5%	50V
C168	1-136-153-00	FILM	0.01MF	5%	50V
C169	1-124-768-11	ELECT	4.7MF	20%	50V
C170	1-124-034-51	ELECT	33MF	20%	16V
C171	1-136-165-00	FILM	0.1MF	5%	50V
C172	1-124-907-11	ELECT	10MF	20%	50V
C173	1-124-034-51	ELECT	33MF	20%	16V
C174	1-124-034-51	ELECT	33MF	20%	16V
C175	1-130-706-00	FILM	0.008MF	3%	1.6KV
C176	1-106-391-12	MYLAR	0.1MF	10%	200V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C177	1-124-907-11	ELECT 10MF 20% 50V	
C178	1-101-004-00	CERAMIC 0.01MF 50V	
		<DIODE>	
D1	8-719-970-89	DIODE DD50R	
D7	8-719-908-20	DIODE ERC88-009	
D8	8-719-908-20	DIODE ERC88-009	
D9	8-719-979-58	DIODE EGP10D	
D10	8-719-979-58	DIODE EGP10D	
D11	8-719-901-19	DIODE V11N	
D12	8-719-979-58	DIODE EGP10D	
D13	8-719-945-81	DIODE ERC06-15SA	
D14	8-719-900-95	DIODE V09G	
D15	8-719-933-02	DIODE ERD33-02	
D103	8-719-911-19	DIODE 1SS119	
D104	8-719-911-19	DIODE 1SS119	
D105	8-719-948-45	DIODE ERA22-08	
D106	8-719-948-45	DIODE ERA22-08	
D107	8-719-911-19	DIODE 1SS119	
D109	8-719-948-45	DIODE ERA22-08	
D110	8-719-911-19	DIODE 1SS119	
D111	8-719-911-19	DIODE 1SS119	
D112	8-719-900-26	DIODE ERD29-08J	
D113	8-719-911-19	DIODE 1SS119	
D114	8-719-110-53	DIODE RD20ESB2	
D115	8-719-110-53	DIODE RD20ESB2	
D116	8-719-920-67	DIODE ERC91-02	
D117	8-719-911-19	DIODE 1SS119	
D118	8-719-948-45	DIODE ERA22-08	
D119	8-719-911-19	DIODE 1SS119	
D120	8-719-911-19	DIODE 1SS119	
D121	8-719-911-19	DIODE 1SS119	
D122	8-719-911-19	DIODE 1SS119	
D123	8-719-911-19	DIODE 1SS119	
D124	8-719-948-45	DIODE ERA22-08	
D126	8-719-110-88	DIODE RD39ESB2	
D127	8-719-110-41	DIODE RD15ESB2	
D128	8-719-110-41	DIODE RD15ESB2	
D129	8-719-110-41	DIODE RD15ESB2	
D130	8-719-110-41	DIODE RD15ESB2	
D131	8-719-911-19	DIODE 1SS119	
D132	8-719-911-19	DIODE 1SS119	
D133	8-719-911-19	DIODE 1SS119	
D134	8-719-300-80	DIODE RU-1C	
D135	8-719-300-80	DIODE RU-1C	
D136	8-719-300-80	DIODE RU-1C	
D137	8-719-300-80	DIODE RU-1C	
D138	8-719-911-19	DIODE 1SS119	
D139	8-719-911-19	DIODE 1SS119	
D140	8-719-911-19	DIODE 1SS119	
D141	8-719-911-19	DIODE 1SS119	
D142	8-719-911-19	DIODE 1SS119	
D143	8-719-911-19	DIODE 1SS119	
D144	8-719-901-19	DIODE V11N	
D145	8-719-911-19	DIODE 1SS119	
D146	8-719-948-45	DIODE ERA22-08	
D149	8-719-911-19	DIODE 1SS119	
		<CONNECTOR>	
E-1	*1-564-516-11	PLUG, CONNECTOR 13P	
E-2	*1-564-514-11	PLUG, CONNECTOR 11P	
E-3	*1-564-509-11	PLUG, CONNECTOR 6P	
E-4	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-5	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-6	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-8	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-9	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-10	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-11	1-508-742-00	PIN, CONNECTOR 3P	
E-13	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
		<FERRITE BEAD>	
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB4	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB5	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB6	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB7	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
		<IC>	
IC1	8-759-945-58	IC RC4558P	
IC2	8-759-945-58	IC RC4558P	
IC3	8-759-945-58	IC RC4558P	
IC101	8-759-345-38	IC HD14538BP	
IC103	8-759-109-82	IC UPC814C	
IC104	8-759-945-58	IC RC4558P	
IC105	8-759-945-58	IC RC4558P	
IC106	8-759-945-58	IC RC4558P	
IC107	8-759-014-95	IC MC1495L	
IC108	8-759-945-58	IC RC4558P	
IC109	8-759-701-79	IC NJM7812FA	
IC110	8-759-929-65	IC LM7912CT	
IC111	8-759-100-75	IC UPC1394C	
IC112	8-759-945-58	IC RC4558P	
IC113	8-759-103-93	IC UPC393C	
IC114	8-759-103-93	IC UPC393C	
		<COIL>	
L100	1-459-483-00	COIL (WITH CORE)	
L102	1-459-155-00	COIL (WITH CORE) 45UH	
L103	1-459-155-00	COIL (WITH CORE) 45UH	
L104	1-459-155-00	COIL (WITH CORE) 45UH	
L106	1-459-483-00	COIL (WITH CORE)	
L107	1-410-093-11	INDUCTOR 33MMH	
L108	1-410-093-11	INDUCTOR 33MMH	
L109	1-459-104-00	COIL, DUST CORE	
L110	1-459-104-00	COIL, DUST CORE	
L111	1-410-093-11	INDUCTOR 33MMH	
L112	1-460-022-11	COIL, CHOKE 1.3MMH	
L113	1-410-680-31	INDUCTOR 330UH	
L114	1-410-686-11	INDUCTOR 1MMH	
L115	1-407-500-00	INDUCTOR 4.7MMH	
		<VARIABLE COIL>	
LV1	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV2	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV3	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
		<TRANSISTOR>	

E

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-142-69	TRANSISTOR 2SK817	
Q2	8-729-142-68	TRANSISTOR 2SJ143	
Q3	8-729-142-69	TRANSISTOR 2SK817	
Q4	8-729-142-68	TRANSISTOR 2SJ143	
Q5	8-729-142-69	TRANSISTOR 2SK817	
Q6	8-729-142-68	TRANSISTOR 2SJ143	
Q7	8-729-820-71	TRANSISTOR 2SC3998CA	
Q21	8-729-802-07	TRANSISTOR 2SD1403-CA	
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q101	8-729-105-74	TRANSISTOR 2SK523-M1	
Q102	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q107	8-729-140-96	TRANSISTOR 2SD774-34	
Q108	8-729-140-97	TRANSISTOR 2SB734-34	
Q109	8-729-105-74	TRANSISTOR 2SK523-M1	
Q110	8-729-143-42	TRANSISTOR 2SK929	
Q111	8-729-143-42	TRANSISTOR 2SK929	
Q112	8-729-142-68	TRANSISTOR 2SJ143	
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q115	8-729-926-42	TRANSISTOR XDC114ES	
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q117	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q118	8-729-105-74	TRANSISTOR 2SK523-M1	
Q120	8-729-802-71	TRANSISTOR 2SA1407-D	
Q121	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q127	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q128	8-729-926-42	TRANSISTOR XDC114ES	
Q129	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q130	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q131	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q132	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q133	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q134	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q135	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q136	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q137	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q138	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q139	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q140	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q141	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q142	8-729-143-42	TRANSISTOR 2SK929	
Q143	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q144	8-729-905-86	TRANSISTOR 2SC4054N	
Q145	8-729-402-03	TRANSISTOR 2SK755	
Q146	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q147	8-729-905-86	TRANSISTOR 2SC4054N	
Q148	8-729-802-71	TRANSISTOR 2SA1407-D	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R2	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R3	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R4	1-249-417-11	CARBON	1K	5%	1/4W	
R5	1-215-445-00	METAL	10K	1%	1/4W	
R7	1-215-445-00	METAL	10K	1%	1/4W	
R8	1-215-445-00	METAL	10K	1%	1/4W	
R9	1-215-445-00	METAL	10K	1%	1/4W	
R10	1-249-417-11	CARBON	1K	5%	1/4W	
R11	1-214-824-11	METAL	22	1%	1/2W	
R12	1-214-824-11	METAL	22	1%	1/2W	
R13	1-214-824-11	METAL	22	1%	1/2W	
R14	1-249-417-11	CARBON	1K	5%	1/4W	
R15	1-215-445-00	METAL	10K	1%	1/4W	
R17	1-215-445-00	METAL	10K	1%	1/4W	
R18	1-215-445-00	METAL	10K	1%	1/4W	
R19	1-215-445-00	METAL	10K	1%	1/4W	
R20	1-249-417-11	CARBON	1K	5%	1/4W	
R21	1-214-832-00	METAL	47	1%	1/2W	
R22	1-214-832-00	METAL	47	1%	1/2W	
R23	1-214-832-00	METAL	47	1%	1/2W	
R24	1-249-417-11	CARBON	1K	5%	1/4W	
R25	1-215-445-00	METAL	10K	1%	1/4W	
R27	1-215-445-00	METAL	10K	1%	1/4W	
R28	1-215-445-00	METAL	10K	1%	1/4W	
R29	1-215-445-00	METAL	10K	1%	1/4W	
R30	1-249-417-11	CARBON	1K	5%	1/4W	
R31	1-214-824-11	METAL	22	1%	1/2W	
R32	1-214-824-11	METAL	22	1%	1/2W	
R33	1-214-824-11	METAL	22	1%	1/2W	
R34	1-214-824-11	METAL	22	1%	1/2W	
R35	1-214-824-11	METAL	22	1%	1/2W	
R36	1-214-824-11	METAL	22	1%	1/2W	
R37	1-214-832-00	METAL	47	1%	1/2W	
R38	1-214-832-00	METAL	47	1%	1/2W	
R39	1-214-832-00	METAL	47	1%	1/2W	
R40	1-214-824-11	METAL	22	1%	1/2W	
R41	1-214-824-11	METAL	22	1%	1/2W	
R42	1-214-824-11	METAL	22	1%	1/2W	
R51	1-249-479-11	CARBON	2.7	5%	1/2W	F
R52	1-249-479-11	CARBON	2.7	5%	1/2W	F
R53	1-249-479-11	CARBON	2.7	5%	1/2W	F
R54	1-215-857-11	METAL OXIDE	10	5%	1W	F
R55	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R56	1-247-716-11	CARBON	1.8K	5%	1/4W	F
R57	1-247-807-31	CARBON	100	5%	1/4W	
R58	1-247-807-31	CARBON	100	5%	1/4W	
R59	1-247-807-31	CARBON	100	5%	1/4W	
R60	1-247-807-31	CARBON	100	5%	1/4W	
R61	1-247-807-31	CARBON	100	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-247-712-11	CARBON	820	5%	1/4W	F
R64	1-247-712-11	CARBON	820	5%	1/4W	F
R65	1-247-712-11	CARBON	820	5%	1/4W	F
R66	1-215-905-11	METAL OXIDE	10	5%	3W	F
R67	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R68	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R69	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R101	1-215-457-00	METAL	33K	1%	1/4W	
R102	1-249-429-11	CARBON	10K	5%	1/4W	
R103	1-249-429-11	CARBON	10K	5%	1/4W	
R109	1-249-429-11	CARBON	10K	5%	1/4W	
R110	1-249-417-11	CARBON	1K	5%	1/4W	
R111	1-249-429-11	CARBON	10K	5%	1/4W	
R112	1-249-425-11	CARBON	4.7K	5%	1/4W	
R113	1-247-807-31	CARBON	100	5%	1/4W	
R114	1-249-417-11	CARBON	1K	5%	1/4W	
R115	1-215-445-00	METAL	10K	1%	1/4W	
R116	1-215-445-00	METAL	10K	1%	1/4W	
R117	1-215-433-00	METAL	3.3K	1%	1/4W	
R118	1-249-423-11	CARBON	3.3K	5%	1/4W	
R119	1-215-457-00	METAL	33K	1%	1/4W	
R120	1-215-457-00	METAL	33K	1%	1/4W	
R121	1-215-445-00	METAL	10K	1%	1/4W	
R122	1-249-425-11	CARBON	4.7K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R123	1-215-445-00	METAL	10K	1%	1/4W	
R124	1-215-445-00	METAL	10K	1%	1/4W	
R125	1-215-457-00	METAL	33K	1%	1/4W	
R126	1-215-457-00	METAL	33K	1%	1/4W	
R127	1-215-447-00	METAL	12K	1%	1/4W	
R128	1-215-445-00	METAL	10K	1%	1/4W	
R129	1-215-447-00	METAL	12K	1%	1/4W	
R130	1-249-425-11	CARBON	4.7K	5%	1/4W	
R131	1-215-445-00	METAL	10K	1%	1/4W	
R132	1-215-449-00	METAL	15K	1%	1/4W	
R133	1-249-425-11	CARBON	4.7K	5%	1/4W	
R134	1-215-453-00	METAL	22K	1%	1/4W	
R135	1-249-429-11	CARBON	10K	5%	1/4W	
R136	1-249-423-11	CARBON	3.3K	5%	1/4W	
R137	1-249-423-11	CARBON	3.3K	5%	1/4W	
R138	1-249-423-11	CARBON	3.3K	5%	1/4W	
R139	1-249-425-11	CARBON	4.7K	5%	1/4W	
R140	1-249-417-11	CARBON	1K	5%	1/4W	
R141	1-249-421-11	CARBON	2.2K	5%	1/4W	
R142	1-249-421-11	CARBON	2.2K	5%	1/4W	
R143	1-249-420-11	CARBON	1.8K	5%	1/4W	
R144	1-249-421-11	CARBON	2.2K	5%	1/4W	
R145	1-249-423-11	CARBON	3.3K	5%	1/4W	
R146	1-249-435-11	CARBON	33K	5%	1/4W	
R147	1-249-421-11	CARBON	2.2K	5%	1/4W	
R148	1-249-440-11	CARBON	82K	5%	1/4W	
R149	1-249-417-11	CARBON	1K	5%	1/4W	
R150	1-215-461-00	METAL	47K	1%	1/4W	
R151	1-249-425-11	CARBON	4.7K	5%	1/4W	
R152	1-215-445-00	METAL	10K	1%	1/4W	
R153	1-215-445-00	METAL	10K	1%	1/4W	
R154	1-247-895-00	CARBON	470K	5%	1/4W	
R155	1-249-420-11	CARBON	1.8K	5%	1/4W	
R156	1-249-437-11	CARBON	47K	5%	1/4W	
R157	1-249-413-11	CARBON	470	5%	1/4W	
R158	1-247-807-31	CARBON	100	5%	1/4W	
R159	1-247-807-31	CARBON	100	5%	1/4W	
R160	1-249-417-11	CARBON	1K	5%	1/4W	
R161	1-215-467-00	METAL	82K	1%	1/4W	
R162	1-215-866-11	METAL OXIDE	330	5%	1W	F
R163	1-215-461-00	METAL	47K	1%	1/4W	
R164	1-249-421-11	CARBON	2.2K	5%	1/4W	
R165	1-215-445-00	METAL	10K	1%	1/4W	
R166	1-249-429-11	CARBON	10K	5%	1/4W	
R167	1-249-437-11	CARBON	47K	5%	1/4W	
R168	1-249-429-11	CARBON	10K	5%	1/4W	
R169	1-247-725-11	CARBON	10K	5%	1/4W	F
R170	1-249-425-11	CARBON	4.7K	5%	1/4W	
R171	1-249-417-11	CARBON	1K	5%	1/4W	
R172	1-249-417-11	CARBON	1K	5%	1/4W	
R173	1-216-389-11	METAL OXIDE	1	5%	3W	F
R174	1-216-388-11	METAL OXIDE	0.82	5%	3W	F
R176	1-247-713-11	CARBON	1K	5%	1/4W	F
R177	1-215-445-00	METAL	10K	1%	1/4W	
R178	1-249-417-11	CARBON	1K	5%	1/4W	
R179	1-249-429-11	CARBON	10K	5%	1/4W	
R180	1-215-433-00	METAL	3.3K	1%	1/4W	
R181	1-249-441-11	CARBON	100K	5%	1/4W	
R182	1-249-421-11	CARBON	2.2K	5%	1/4W	
R183	1-247-807-31	CARBON	100	5%	1/4W	
R184	1-249-425-11	CARBON	4.7K	5%	1/4W	
R186	1-249-437-11	CARBON	47K	5%	1/4W	
R187	1-215-461-00	METAL	47K	1%	1/4W	
R191	1-249-423-11	CARBON	3.3K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R192	1-249-433-11	CARBON	22K	5%	1/4W	
R193	1-247-903-00	CARBON	1M	5%	1/4W	
R194	1-249-423-11	CARBON	3.3K	5%	1/4W	
R195	1-249-423-11	CARBON	3.3K	5%	1/4W	
R196	1-247-883-00	CARBON	150K	5%	1/4W	
R197	1-247-807-31	CARBON	100	5%	1/4W	
R198	1-215-447-00	METAL	12K	1%	1/4W	
R199	1-249-423-11	CARBON	3.3K	5%	1/4W	
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R202	1-249-417-11	CARBON	1K	5%	1/4W	
R203	1-249-453-11	CARBON	3.3	5%	1/4W	F
R204	1-249-429-11	CARBON	10K	5%	1/4W	
R205	1-249-427-11	CARBON	6.8K	5%	1/4W	
R206	1-249-429-11	CARBON	10K	5%	1/4W	
R207	1-249-441-11	CARBON	100K	5%	1/4W	
R208	1-216-341-11	METAL OXIDE	0.22	5%	1W	F
R209	1-249-417-11	CARBON	1K	5%	1/4W	
R210	1-215-451-00	METAL	18K	1%	1/4W	
R212	1-249-431-11	CARBON	15K	5%	1/4W	
R213	1-249-429-11	CARBON	10K	5%	1/4W	
R214	1-215-883-11	METAL OXIDE	33	5%	2W	F
R215	1-249-417-11	CARBON	1K	5%	1/4W	
R216	1-249-423-11	CARBON	3.3K	5%	1/4W	
R217	1-249-399-11	CARBON	33	5%	1/4W	
R218	1-249-417-11	CARBON	1K	5%	1/4W	F
R219	1-215-445-00	METAL	10K	1%	1/4W	
R220	1-215-445-00	METAL	10K	1%	1/4W	
R221	1-249-476-11	CARBON	1.5	5%	1/2W	F
R222	1-249-441-11	CARBON	100K	5%	1/4W	
R223	1-249-429-11	CARBON	10K	5%	1/4W	
R224	1-249-429-11	CARBON	10K	5%	1/4W	
R225	1-249-421-11	CARBON	2.2K	5%	1/4W	
R226	1-215-445-00	METAL	10K	1%	1/4W	
R227	1-249-429-11	CARBON	10K	5%	1/4W	
R228	1-249-429-11	CARBON	10K	5%	1/4W	
R229	1-249-429-11	CARBON	10K	5%	1/4W	
R230	1-249-443-11	CARBON	0.47	5%	1/4W	F
R231	1-249-443-11	CARBON	0.47	5%	1/4W	F
R232	1-249-437-11	CARBON	47K	5%	1/4W	
R233	1-249-417-11	CARBON	1K	5%	1/4W	
R234	1-249-417-11	CARBON	1K	5%	1/4W	
R235	1-249-437-11	CARBON	47K	5%	1/4W	
R236	1-249-437-11	CARBON	47K	5%	1/4W	
R237	1-249-441-11	CARBON	100K	5%	1/4W	
R238	1-249-399-11	CARBON	33	5%	1/4W	
R239	1-249-423-11	CARBON	3.3K	5%	1/4W	
R240	1-249-441-11	CARBON	100K	5%	1/4W	
R241	1-249-437-11	CARBON	47K	5%	1/4W	
R242	1-215-461-00	METAL	47K	1%	1/4W	
R243	1-215-469-00	METAL	100K	1%	1/4W	
R244	1-249-423-11	CARBON	3.3K	5%	1/4W	
R245	1-216-441-00	METAL OXIDE	27K	5%	1W	F
R246	1-215-435-00	METAL	3.9K	1%	1/4W	
R247	1-249-421-11	CARBON	2.2K	5%	1/4W	
R248	1-249-425-11	CARBON	4.7K	5%	1/4W	
R249	1-215-421-00	METAL	1K	1%	1/4W	
R250	1-215-445-00	METAL	10K	1%	1/4W	
R251	1-247-887-00	CARBON	220K	5%	1/4W	
R252	1-249-429-11	CARBON	10K	5%	1/4W	
R254	1-247-807-31	CARBON	100	5%	1/4W	
R255	1-249-417-11	CARBON	1K	5%	1/4W	
R256	1-249-441-11	CARBON	100K	5%	1/4W	
R257	1-249-437-11	CARBON	47K	5%	1/4W	

E **DA**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R258	1-215-435-00	METAL	3.9K	1%	1/4W	
R259	1-215-439-00	METAL	5.6K	1%	1/4W	
R260	1-215-445-00	METAL	10K	1%	1/4W	
R261	1-249-429-11	CARBON	10K	5%	1/4W	
R262	1-247-807-31	CARBON	100	5%	1/4W	
R263	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R264	1-249-429-11	CARBON	10K	5%	1/4W	
R265	1-247-807-31	CARBON	100	5%	1/4W	
R266	1-249-441-11	CARBON	100K	5%	1/4W	
R267	1-215-379-00	METAL	18	1%	1/4W	
R268	1-215-379-00	METAL	18	1%	1/4W	
R269	1-215-421-00	METAL	1K	1%	1/4W	
R270	1-215-421-00	METAL	1K	1%	1/4W	
R271	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R272	1-249-453-11	CARBON	3.3	5%	1/4W	F
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R274	1-249-429-11	CARBON	10K	5%	1/4W	
R275	1-249-429-11	CARBON	10K	5%	1/4W	
R276	1-249-429-11	CARBON	10K	5%	1/4W	
R281	1-249-451-11	CARBON	2.2	5%	1/4W	F
R282	1-249-451-11	CARBON	2.2	5%	1/4W	F
R283	1-249-425-11	CARBON	4.7K	5%	1/4W	
R284	1-215-467-00	METAL	82K	1%	1/4W	
R285	1-215-445-00	METAL	10K	1%	1/4W	
R286	1-215-911-11	METAL OXIDE	100	5%	3W	F
R287	1-202-727-00	SOLID	4.7M	10%	1/2W	
R288	1-202-727-00	SOLID	4.7M	10%	1/2W	
R289	1-202-727-00	SOLID	4.7M	10%	1/2W	
R290	1-202-727-00	SOLID	4.7M	10%	1/2W	
R296	1-249-429-11	CARBON	10K	5%	1/4W	

<VARIABLE RESISTOR>

RV104	1-228-997-00	RES, ADJ, CARBON 100K (SIZE DET)

<TRANSFORMER>

T2	⚠1-439-479-11	TRANSFORMER, LINE OUTPUT
T3	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE
T102	⚠1-439-480-11	TRANSFORMER, HORIZONTAL OUTPUT
T103	1-437-144-11	TRANSFORMER, FERRITE (HDT)
T104	1-437-144-11	TRANSFORMER, FERRITE (HDT)
T105	1-424-290-11	TRANSFORMER, DRIVE

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*A-1346-191-A	DA BOARD, COMPLETE	
	**********	
4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

C1	1-124-907-11	ELECT	10MF	20%	50V
C2	1-126-101-11	ELECT	100MF	20%	16V
C3	1-124-907-11	ELECT	10MF	20%	50V
C4	1-126-101-11	ELECT	100MF	20%	16V
C5	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C6	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C7	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8	1-124-903-11	ELECT	1MF	20%	50V
C9	1-130-483-00	MYLAR	0.01MF	5%	50V
C10	1-124-903-11	ELECT	1MF	20%	50V
C11	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C12	1-124-903-11	ELECT	1MF	20%	50V
C13	1-130-483-00	MYLAR	0.01MF	5%	50V
C14	1-124-907-11	ELECT	10MF	20%	50V
C15	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C16	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C17	1-136-165-00	FILM	0.1MF	5%	50V
C18	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C19	1-124-903-11	ELECT	1MF	20%	50V
C20	1-130-483-00	MYLAR	0.01MF	5%	50V
C21	1-124-903-11	ELECT	1MF	20%	50V
C22	1-124-925-11	ELECT	2.2MF	20%	50V
C23	1-124-907-11	ELECT	10MF	20%	50V
C24	1-124-907-11	ELECT	10MF	20%	50V
C25	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C26	1-124-903-11	ELECT	1MF	20%	50V
C27	1-130-483-00	MYLAR	0.01MF	5%	50V
C28	1-124-903-11	ELECT	1MF	20%	50V
C29	1-124-925-11	ELECT	2.2MF	20%	50V
C30	1-124-907-11	ELECT	10MF	20%	50V
C31	1-124-907-11	ELECT	10MF	20%	50V
C32	1-124-907-11	ELECT	10MF	20%	50V
C33	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C34	1-124-927-11	ELECT	4.7MF	20%	50V
C35	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C36	1-108-792-11	MYLAR	0.001MF	5%	50V
C38	1-124-925-11	ELECT	2.2MF	20%	50V
C39	1-124-907-11	ELECT	10MF	20%	50V
C40	1-126-101-11	ELECT	100MF	20%	16V
C41	1-130-483-00	MYLAR	0.01MF	5%	50V
C42	1-124-927-11	ELECT	4.7MF	20%	50V
C43	1-124-907-11	ELECT	10MF	20%	50V
C44	1-126-101-11	ELECT	100MF	20%	16V
C45	1-130-483-00	MYLAR	0.01MF	5%	50V
C46	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C48	1-124-927-11	ELECT	4.7MF	20%	50V
C49	1-126-101-11	ELECT	100MF	20%	16V
C50	1-130-483-00	MYLAR	0.01MF	5%	50V
C51	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C52	1-108-792-11	MYLAR	0.001MF	5%	50V
C53	1-124-925-11	ELECT	2.2MF	20%	50V
C54	1-124-120-11	ELECT	220MF	20%	16V
C55	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C56	1-163-253-11	CERAMIC CHIP	120PF	5%	50V
C57	1-124-925-11	ELECT	2.2MF	20%	50V
C58	1-124-925-11	ELECT	2.2MF	20%	50V
C59	1-124-925-11	ELECT	2.2MF	20%	50V
C60	1-124-927-11	ELECT	4.7MF	20%	50V
C61	1-124-917-11	ELECT	33MF	20%	50V
C62	1-124-916-11	ELECT	22MF	20%	50V
C63	1-124-925-11	ELECT	2.2MF	20%	50V
C64	1-124-119-00	ELECT	330MF	20%	16V
C65	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C66	1-130-471-00	FILM	0.001MF	5%	50V
C67	1-130-471-00	FILM	0.001MF	5%	50V
C68	1-124-927-11	ELECT	4.7MF	20%	50V
C69	1-108-796-11	MYLAR	0.0022MF	5%	50V
C70	1-106-359-00	MYLAR	0.0047MF	5%	50V
C71	1-124-910-11	ELECT	47MF	20%	50V
C72	1-124-907-11	ELECT	10MF	20%	50V
C73	1-136-165-00	FILM	0.1MF	5%	50V
C74	1-124-927-11	ELECT	4.7MF	20%	50V
C75	1-124-903-11	ELECT	1MF	20%	50V
C76	1-124-907-11	ELECT	10MF	20%	50V
C77	1-163-031-11	CERAMIC CHIP	0.01MF		50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C78	1-124-907-11	ELECT	10MF	20%	50V
C79	1-124-907-11	ELECT	10MF	20%	50V
C80	1-124-907-11	ELECT	10MF	20%	50V
C81	1-124-907-11	ELECT	10MF	20%	50V
C82	1-124-907-11	ELECT	10MF	20%	50V
C83	1-124-907-11	ELECT	10MF	20%	50V
C84	1-136-173-00	FILM	0.47MF	5%	50V
C101	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C106	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C107	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C108	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C109	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C110	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C111	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C112	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C113	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C114	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C115	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C116	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C117	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C118	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C201	1-124-907-11	ELECT	10MF	20%	50V
C202	1-130-483-00	MYLAR	0.01MF	5%	50V
C203	1-136-165-00	FILM	0.1MF	5%	50V
C204	1-124-927-11	ELECT	4.7MF	20%	50V
C205	1-124-903-11	ELECT	1MF	20%	50V
C206	1-124-903-11	ELECT	1MF	20%	50V
C207	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C208	1-124-903-11	ELECT	1MF	20%	50V
C209	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C210	1-124-907-11	ELECT	10MF	20%	50V
C211	1-124-910-11	ELECT	47MF	20%	50V
C212	1-124-916-11	ELECT	22MF	20%	50V
C213	1-124-925-11	ELECT	2.2MF	20%	50V
C214	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C215	1-124-925-11	ELECT	2.2MF	20%	50V
C216	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C217	1-124-925-11	ELECT	2.2MF	20%	50V
C218	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C219	1-124-925-11	ELECT	2.2MF	20%	50V
C220	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C221	1-124-927-11	ELECT	4.7MF	20%	50V
C222	1-124-907-11	ELECT	10MF	20%	50V
C223	1-124-925-11	ELECT	2.2MF	20%	50V
C224	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C225	1-124-925-11	ELECT	2.2MF	20%	50V
C226	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C240	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C251	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C253	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C254	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C255	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C256	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C257	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C258	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C259	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C260	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C261	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C262	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C263	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C264	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C265	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C266	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C267	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C268	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C269	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C270	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C271	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C272	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C273	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C274	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C275	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C276	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C277	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C278	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C279	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C280	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C281	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C282	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C401	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C402	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C403	1-124-927-11	ELECT	4.7MF	20%	50V
C404	1-124-927-11	ELECT	4.7MF	20%	50V
C451	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C452	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C601	1-124-907-11	ELECT	10MF	20%	50V
C602	1-124-907-11	ELECT	10MF	20%	50V
C603	1-124-907-11	ELECT	10MF	20%	50V
C651	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C652	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C701	1-124-925-11	ELECT	2.2MF	20%	50V
C702	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C703	1-124-925-11	ELECT	2.2MF	20%	50V
C704	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C801	1-126-101-11	ELECT	100MF	20%	16V
C802	1-126-101-11	ELECT	100MF	20%	16V

<DIODE>

D1	8-719-900-95	DIODE V09G
D2	8-719-900-95	DIODE V09G
D3	8-719-106-71	DIODE RD12M-B2
D4	8-719-400-18	DIODE MA152WK
D5	8-719-105-82	DIODE RD5.1M-B2
D6	8-719-400-18	DIODE MA152WK
D7	8-719-400-18	DIODE MA152WK
D8	8-719-104-34	DIODE 1S2836
D9	8-719-948-45	DIODE ERA22-08
D10	8-719-400-18	DIODE MA152WK
D11	8-719-400-18	DIODE MA152WK
D12	8-719-400-18	DIODE MA152WK
D13	8-719-400-18	DIODE MA152WK
D15	8-719-400-18	DIODE MA152WK
D16	8-719-400-18	DIODE MA152WK
D201	8-719-800-76	DIODE 1SS226
D202	8-719-400-18	DIODE MA152WK
D203	8-719-400-18	DIODE MA152WK
D204	8-719-400-18	DIODE MA152WK
D205	8-719-800-76	DIODE 1SS226
D206	8-719-400-18	DIODE MA152WK
D207	8-719-400-18	DIODE MA152WK
D401	8-719-400-18	DIODE MA152WK
D402	8-719-400-18	DIODE MA152WK
D602	8-719-400-18	DIODE MA152WK
D701	8-719-400-18	DIODE MA152WK

DA

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
DA1	*1-568-984-11	CONNECTOR, MALE 96P	
		<IC>	
IC1	8-759-701-79	IC NJM7812FA	
IC2	8-759-700-69	IC NJM79L12A	
IC3	8-759-300-78	IC HD14538BFP	
IC4	8-759-100-96	IC UPC4558G2	
IC5	8-759-300-78	IC HD14538BFP	
IC6	8-759-100-96	IC UPC4558G2	
IC7	8-759-100-93	IC UPC393G2	
IC8	8-759-300-78	IC HD14538BFP	
IC9	8-759-114-06	IC UPC814G2-1	
IC10	8-759-300-78	IC HD14538BFP	
IC11	8-759-100-93	IC UPC393G2	
IC12	8-759-300-71	IC HD14053BFP	
IC13	8-759-300-78	IC HD14538BFP	
IC14	8-759-100-93	IC UPC393G2	
IC15	8-749-922-79	IC MC-8638	
IC16	8-749-922-80	IC MC-8639	
IC17	8-759-100-93	IC UPC393G2	
IC18	8-759-114-06	IC UPC814G2-1	
IC20	8-759-114-06	IC UPC814G2-1	
IC21	8-759-114-06	IC UPC814G2-1	
IC22	8-759-100-60	IC UPC1377C	
IC201	8-752-033-65	IC CXA1158P	
IC202	8-759-925-74	IC SN74HC04ANS	
IC203	8-759-114-06	IC UPC814G2-1	
IC204	8-759-114-06	IC UPC814G2-1	
IC205	8-759-114-06	IC UPC814G2-1	
IC206	8-759-114-06	IC UPC814G2-1	
IC207	8-759-114-06	IC UPC814G2-1	
IC208	8-759-100-96	IC UPC4558G2	
IC209	8-759-100-96	IC UPC4558G2	
IC210	8-759-100-96	IC UPC4558G2	
IC211	8-759-114-06	IC UPC814G2-1	
IC212	8-759-114-06	IC UPC814G2-1	
IC213	8-759-300-71	IC HD14053BFP	
IC214	8-759-114-06	IC UPC814G2-1	
IC215	8-759-114-06	IC UPC814G2-1	
IC216	8-759-114-06	IC UPC814G2-1	
IC401	8-759-114-06	IC UPC814G2-1	
IC402	8-759-926-11	IC SN74HC138ANS	
IC601	8-759-100-96	IC UPC4558G2	
IC701	8-759-114-06	IC UPC814G2-1	
		<COIL>	
L1	1-459-155-00	COIL (WITH CORE) 45UH	
L2	1-459-155-00	COIL (WITH CORE) 45UH	
L801	1-459-155-00	COIL (WITH CORE) 45UH	
L802	1-459-155-00	COIL (WITH CORE) 45UH	
		<TRANSISTOR>	
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4	8-729-216-22	TRANSISTOR 2SA1162-G	
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9	8-729-105-74	TRANSISTOR 2SK523-M1	
Q10	8-729-216-22	TRANSISTOR 2SA1162-G	
Q11	8-729-216-22	TRANSISTOR 2SA1162-G	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-901-01	TRANSISTOR DTC144EK	
Q15	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q16	8-729-926-23	TRANSISTOR FMW5	
Q17	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q18	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q19	8-729-904-04	TRANSISTOR FMS2	
Q20	8-729-926-23	TRANSISTOR FMW5	
Q21	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q22	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q205	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q206	8-729-903-82	TRANSISTOR FMW2	
Q207	8-729-920-59	TRANSISTOR IMX2	
Q208	8-729-904-04	TRANSISTOR FMS2	
Q209	8-729-926-23	TRANSISTOR FMW5	
Q210	8-729-926-23	TRANSISTOR FMW5	
Q211	8-729-920-59	TRANSISTOR IMX2	
Q212	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q213	8-729-216-22	TRANSISTOR 2SA1162-G	
Q214	8-729-926-23	TRANSISTOR FMW5	
Q215	8-729-216-22	TRANSISTOR 2SA1162-G	
Q216	8-729-903-82	TRANSISTOR FMW2	
Q217	8-729-920-59	TRANSISTOR IMX2	
Q218	8-729-904-04	TRANSISTOR FMS2	
Q219	8-729-926-23	TRANSISTOR FMW5	
Q220	8-729-926-23	TRANSISTOR FMW5	
Q221	8-729-920-59	TRANSISTOR IMX2	
Q222	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q223	8-729-216-22	TRANSISTOR 2SA1162-G	
Q224	8-729-903-82	TRANSISTOR FMW2	
Q225	8-729-920-59	TRANSISTOR IMX2	
Q226	8-729-904-04	TRANSISTOR FMS2	
Q227	8-729-926-23	TRANSISTOR FMW5	
Q228	8-729-926-23	TRANSISTOR FMW5	
Q229	8-729-920-59	TRANSISTOR IMX2	
Q230	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q231	8-729-216-22	TRANSISTOR 2SA1162-G	
Q232	8-729-902-96	TRANSISTOR FMS1	
Q233	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q234	8-729-902-96	TRANSISTOR FMS1	
Q235	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q236	8-729-926-23	TRANSISTOR FMW5	
Q237	8-729-216-22	TRANSISTOR 2SA1162-G	
Q238	8-729-926-23	TRANSISTOR FMW5	
Q239	8-729-216-22	TRANSISTOR 2SA1162-G	
Q401	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q402	8-729-216-22	TRANSISTOR 2SA1162-G	
Q602	8-729-926-23	TRANSISTOR FMW5	
Q603	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q604	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q605	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q701	8-729-903-82	TRANSISTOR FMW2	
Q702	8-729-920-59	TRANSISTOR IMX2	
Q703	8-729-904-04	TRANSISTOR FMS2	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q704	8-729-926-23	TRANSISTOR FMW5	
Q705	8-729-926-23	TRANSISTOR FMW5	
Q706	8-729-920-59	TRANSISTOR IMX2	
Q707	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q708	8-729-216-22	TRANSISTOR 2SA1162-G	
Q709	8-729-904-04	TRANSISTOR FMS2	
Q801	8-729-205-96	TRANSISTOR 2SC3668-O	
Q802	8-729-205-95	TRANSISTOR 2SA1428-Y	
Q803	8-729-901-01	TRANSISTOR DTC144EK	
		<RESISTOR>	
R1	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R3	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R4	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R5	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R7	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R8	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R9	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R10	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R11	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R12	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R13	1-216-699-11	METAL CHIP 100K 0.50% 1/10W	
R14	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
R15	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R16	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R17	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R18	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R19	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R20	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R21	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R22	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R23	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R24	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R25	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R26	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R27	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R28	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R29	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R30	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R31	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
R32	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R33	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R34	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R35	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R36	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R37	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R38	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R39	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R40	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R41	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R42	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R43	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R44	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R45	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R46	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R47	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R48	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R49	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R50	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R51	1-216-685-11	METAL CHIP 27K 0.50% 1/10W	
R52	1-216-693-11	METAL CHIP 56K 0.50% 1/10W	
R53	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R54	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R55	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R56	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R57	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R58	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R59	1-216-693-11	METAL CHIP 56K 0.50% 1/10W	
R60	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R61	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R62	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R63	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R64	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R65	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R66	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R67	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R68	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R69	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R70	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R71	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R72	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R73	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R74	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R75	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R76	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R77	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R78	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R79	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R80	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R81	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R82	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R83	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R84	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R85	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R86	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R87	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R88	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R89	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R90	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R91	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R92	1-216-661-11	METAL CHIP 2.7K 0.50% 1/10W	
R93	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R94	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R95	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R96	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R97	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R98	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R99	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R100	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R101	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R102	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R103	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R104	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R105	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R106	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R107	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R108	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R109	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R110	1-216-673-11	METAL CHIP 8.2K 0.50% 1/10W	
R111	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R112	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R113	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R114	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R115	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R116	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R118	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R119	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R120	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R121	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R122	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R123	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R124	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R125	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R126	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R127	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R128	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R129	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R130	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R132	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R133	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R134	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R135	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R136	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R137	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R138	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R139	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R140	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R141	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R142	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R144	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R145	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R146	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R147	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R148	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R149	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R150	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R151	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R152	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R153	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R154	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R155	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R156	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R157	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R158	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R159	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R160	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R161	1-216-697-11	METAL CHIP	82K	0.50%	1/10W	
R162	1-216-697-11	METAL CHIP	82K	0.50%	1/10W	
R163	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R164	1-216-697-11	METAL CHIP	82K	0.50%	1/10W	
R165	1-216-697-11	METAL CHIP	82K	0.50%	1/10W	
R166	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R167	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R168	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R169	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R170	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R171	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R172	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R173	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R174	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R176	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R177	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R178	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R179	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R180	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R181	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R182	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R201	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R202	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R203	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R204	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R205	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R206	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R207	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R208	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R209	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R210	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R211	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R212	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R216	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R217	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R218	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R219	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R220	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R221	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R222	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R223	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R224	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R225	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R226	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R227	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R228	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R229	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R230	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R231	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R232	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R233	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R234	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R235	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R236	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R237	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R238	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R239	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R240	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R241	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R242	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R243	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R244	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R245	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R246	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R247	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R248	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R249	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R250	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R251	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R252	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R253	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R254	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R255	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R256	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R257	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R258	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R259	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R260	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R261	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R262	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R263	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R264	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R265	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R266	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R267	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R268	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R269	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R270	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R271	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R272	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R273	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R274	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R275	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R276	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R277	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R278	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R279	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R280	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R281	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R282	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R283	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R284	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R285	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R286	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R287	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R288	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R289	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R290	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R291	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R292	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R293	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R294	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R295	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R296	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R297	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R298	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R299	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R300	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R301	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R302	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R303	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R304	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R305	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R306	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R307	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R308	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R309	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R310	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R311	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R312	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R313	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R314	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R315	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R316	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R317	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R318	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R319	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R320	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R321	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R322	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R323	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R324	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R325	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R326	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R327	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R328	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R329	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R330	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R331	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R332	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R334	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R335	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R336	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R337	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R338	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R339	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R340	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R341	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R342	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R343	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R344	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R345	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R346	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R347	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R348	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R349	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R350	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R351	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R352	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R353	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R354	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R355	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R356	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R357	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R358	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R359	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R360	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R361	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R364	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R365	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R366	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R368	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R369	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R370	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R401	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R402	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R403	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R404	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R405	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R406	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R407	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R408	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R409	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R410	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R411	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R412	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R413	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R414	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R415	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R416	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R417	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R418	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R601	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R602	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R603	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R604	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R607	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	

DA DC

REF.NO.	PART NO.	DESCRIPTION				REMARK
R608	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R609	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R610	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R611	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R612	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R613	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R614	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R615	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R701	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R702	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R703	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R704	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R705	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R706	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R707	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R708	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R709	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R710	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R711	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R712	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R713	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R714	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R715	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R716	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R717	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R718	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R719	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R720	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R721	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R722	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R723	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R724	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R725	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R726	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R727	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R728	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R729	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R730	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R732	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R733	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R801	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R802	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R803	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R804	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R807	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<VARIABLE RESISTOR>

RV1	1-237-503-21	RES, ADJ, CERMET 10K (AFC)
RV2	1-237-503-21	RES, ADJ, CERMET 10K (F-V)
RV3	1-237-501-21	RES, ADJ, CERMET 2K (VIDEO AFC)
RV4	1-237-505-21	RES, ADJ, CERMET 50K (V.HOLD)
RV5	1-237-505-21	RES, ADJ, CERMET 50K (SHIFT)
RV6	1-237-504-21	RES, ADJ, CERMET 20K (FOCUS)

<SWITCH>

S1	1-570-865-11	SWITCH, SLIDE (V SYNC OFF)
S2	1-570-865-11	SWITCH, SLIDE (HD OFF)

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REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1346-207-A	DC BOARD, COMPLETE				
		**********				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
	*4-395-525-01	HOLDER (D), TR				
	*4-395-527-01	HOLDER (B), TR				
	4-874-042-00	SHEET, INSULATING				

<CAPACITOR>

C1	1-124-122-11	ELECT	100MF	20%	50V
C2	1-126-101-11	ELECT	100MF	20%	16V
C3	1-124-122-11	ELECT	100MF	20%	50V
C4	1-126-101-11	ELECT	100MF	20%	16V
C5	1-124-122-11	ELECT	100MF	20%	50V
C6	1-102-963-00	CERAMIC	33PF	5%	50V
C7	1-102-963-00	CERAMIC	33PF	5%	50V
C8	1-136-157-00	FILM	0.022MF	5%	50V
C9	1-124-903-11	ELECT	1MF	20%	50V
C10	1-124-122-11	ELECT	100MF	20%	50V
C11	1-102-963-00	CERAMIC	33PF	5%	50V
C12	1-102-963-00	CERAMIC	33PF	5%	50V
C13	1-136-157-00	FILM	0.022MF	5%	50V
C14	1-124-903-11	ELECT	1MF	20%	50V
C15	1-124-122-11	ELECT	100MF	20%	50V
C16	1-102-963-00	CERAMIC	33PF	5%	50V
C17	1-102-963-00	CERAMIC	33PF	5%	50V
C18	1-136-157-00	FILM	0.022MF	5%	50V
C19	1-124-903-11	ELECT	1MF	20%	50V
C20	1-136-173-00	FILM	0.47MF	5%	50V
C21	1-124-556-11	ELECT	2200MF	20%	16V
C22	1-124-556-11	ELECT	2200MF	20%	16V
C24	1-136-165-00	FILM	0.1MF	5%	50V
C25	1-136-165-00	FILM	0.1MF	5%	50V
C26	1-136-165-00	FILM	0.1MF	5%	50V
C27	1-136-165-00	FILM	0.1MF	5%	50V
C28	1-136-165-00	FILM	0.1MF	5%	50V
C29	1-136-165-00	FILM	0.1MF	5%	50V
C30	1-136-165-00	FILM	0.1MF	5%	50V
C31	1-136-165-00	FILM	0.1MF	5%	50V
C32	1-136-165-00	FILM	0.1MF	5%	50V
C33	1-124-477-11	ELECT	47MF	20%	16V
C34	1-124-903-11	ELECT	1MF	20%	50V
C35	1-124-360-00	ELECT	1000MF	20%	16V
C36	1-124-907-11	ELECT	10MF	20%	50V
C37	1-124-907-11	ELECT	10MF	20%	50V
C101	1-102-824-00	CERAMIC	470PF	5%	50V
C102	1-124-903-11	ELECT	1MF	20%	50V
C103	1-101-004-00	CERAMIC	0.01MF		50V
C104	1-124-122-11	ELECT	100MF	20%	50V
C105	1-124-922-11	ELECT	1000MF	20%	50V
C106	1-124-903-11	ELECT	1MF	20%	50V
C107	1-101-004-00	CERAMIC	0.01MF		50V
C108	1-124-122-11	ELECT	100MF	20%	50V
C109	1-124-922-11	ELECT	1000MF	20%	50V
C110	1-136-159-00	FILM	0.033MF	5%	50V
C111	1-136-159-00	FILM	0.033MF	5%	50V
C201	1-130-473-00	MYLAR	0.0015MF	5%	50V
C202	1-102-973-00	CERAMIC	100PF	5%	50V
C203	1-102-973-00	CERAMIC	100PF	5%	50V
C204	1-136-153-00	FILM	0.01MF	5%	50V
C205	1-124-477-11	ELECT	47MF	20%	16V
C206	1-124-122-11	ELECT	100MF	20%	50V
C207	1-101-004-00	CERAMIC	0.01MF		50V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C208	1-124-122-11	ELECT	100MF	20%	50V	
C209	1-101-004-00	CERAMIC	0.01MF		50V	
C210	1-130-473-00	MYLAR	0.0015MF	5%	50V	
C211	1-102-973-00	CERAMIC	100PF	5%	50V	
C212	1-102-973-00	CERAMIC	100PF	5%	50V	
C213	1-136-153-00	FILM	0.01MF	5%	50V	
C214	1-124-477-11	ELECT	47MF	20%	16V	
C215	1-124-122-11	ELECT	100MF	20%	50V	
C216	1-101-004-00	CERAMIC	0.01MF		50V	
C217	1-124-122-11	ELECT	100MF	20%	50V	
C218	1-101-004-00	CERAMIC	0.01MF		50V	
C219	1-130-473-00	MYLAR	0.0015MF	5%	50V	
C220	1-102-973-00	CERAMIC	100PF	5%	50V	
C221	1-102-973-00	CERAMIC	100PF	5%	50V	
C222	1-136-153-00	FILM	0.01MF	5%	50V	
C223	1-124-477-11	ELECT	47MF	20%	16V	
C224	1-124-122-11	ELECT	100MF	20%	50V	
C225	1-101-004-00	CERAMIC	0.01MF		50V	
C226	1-124-122-11	ELECT	100MF	20%	50V	
C227	1-101-004-00	CERAMIC	0.01MF		50V	
C228	1-124-907-11	ELECT	10MF	20%	50V	
C229	1-101-004-00	CERAMIC	0.01MF		50V	
C230	1-124-907-11	ELECT	10MF	20%	50V	
C231	1-101-004-00	CERAMIC	0.01MF		50V	
C232	1-124-907-11	ELECT	10MF	20%	50V	
C233	1-101-004-00	CERAMIC	0.01MF		50V	
C234	1-124-907-11	ELECT	10MF	20%	50V	
C235	1-101-004-00	CERAMIC	0.01MF		50V	
C236	1-124-907-11	ELECT	10MF	20%	50V	
C237	1-101-004-00	CERAMIC	0.01MF		50V	
C238	1-124-907-11	ELECT	10MF	20%	50V	
C239	1-101-004-00	CERAMIC	0.01MF		50V	
C243	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C244	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C245	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C246	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C247	1-130-471-00	MYLAR	0.001MF	5%	50V	
C248	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C249	1-130-471-00	MYLAR	0.001MF	5%	50V	
C250	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C251	1-130-471-00	MYLAR	0.001MF	5%	50V	
C301	1-130-473-00	MYLAR	0.0015MF	5%	50V	
C302	1-102-973-00	CERAMIC	100PF	5%	50V	
C303	1-102-973-00	CERAMIC	100PF	5%	50V	
C304	1-136-153-00	FILM	0.01MF	5%	50V	
C305	1-124-477-11	ELECT	47MF	20%	16V	
C306	1-124-122-11	ELECT	100MF	20%	50V	
C307	1-101-004-00	CERAMIC	0.01MF		50V	
C308	1-124-122-11	ELECT	100MF	20%	50V	
C309	1-101-004-00	CERAMIC	0.01MF		50V	
C310	1-130-473-00	MYLAR	0.0015MF	5%	50V	
C311	1-102-973-00	CERAMIC	100PF	5%	50V	
C312	1-102-973-00	CERAMIC	100PF	5%	50V	
C313	1-136-153-00	FILM	0.01MF	5%	50V	
C314	1-124-477-11	ELECT	47MF	20%	16V	
C315	1-124-122-11	ELECT	100MF	20%	50V	
C316	1-101-004-00	CERAMIC	0.01MF		50V	
C317	1-124-122-11	ELECT	100MF	20%	50V	
C318	1-101-004-00	CERAMIC	0.01MF		50V	
C319	1-130-473-00	MYLAR	0.0015MF	5%	50V	
C320	1-102-973-00	CERAMIC	100PF	5%	50V	
C321	1-102-973-00	CERAMIC	100PF	5%	50V	
C322	1-136-153-00	FILM	0.01MF	5%	50V	
C323	1-124-477-11	ELECT	47MF	20%	16V	
C324	1-124-477-11	ELECT	47MF	20%	16V	
C325	1-101-004-00	CERAMIC	0.01MF		50V	
C326	1-124-477-11	ELECT	47MF	20%	16V	
C327	1-101-004-00	CERAMIC	0.01MF		50V	
C328	1-124-907-11	ELECT	10MF	20%	50V	
C329	1-101-004-00	CERAMIC	0.01MF		50V	
C330	1-124-907-11	ELECT	10MF	20%	50V	
C331	1-101-004-00	CERAMIC	0.01MF		50V	
C332	1-124-907-11	ELECT	10MF	20%	50V	
C333	1-101-004-00	CERAMIC	0.01MF		50V	
C334	1-124-907-11	ELECT	10MF	20%	50V	
C335	1-101-004-00	CERAMIC	0.01MF		50V	
C336	1-124-907-11	ELECT	10MF	20%	50V	
C337	1-101-004-00	CERAMIC	0.01MF		50V	
C338	1-124-907-11	ELECT	10MF	20%	50V	
C339	1-101-004-00	CERAMIC	0.01MF		50V	
C343	1-102-119-00	CERAMIC	0.0015MF	10%	50V	
C344	1-102-119-00	CERAMIC	0.0015MF	10%	50V	
C345	1-102-119-00	CERAMIC	0.0015MF	10%	50V	
C346	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C347	1-130-471-00	MYLAR	0.001MF	5%	50V	
C348	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C349	1-130-471-00	MYLAR	0.001MF	5%	50V	
C350	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C351	1-130-471-00	MYLAR	0.001MF	5%	50V	

<DIODE>

D1	8-719-900-95	DIODE V09G
D2	8-719-900-95	DIODE V09G
D3	8-719-900-95	DIODE V09G
D4	8-719-911-19	DIODE 1SS119
D5	8-719-900-95	DIODE V09G
D6	8-719-911-19	DIODE 1SS119
D7	8-719-900-95	DIODE V09G
D8	8-719-911-19	DIODE 1SS119
D9	8-719-911-19	DIODE 1SS119
D10	8-719-911-19	DIODE 1SS119
D11	8-719-911-19	DIODE 1SS119
D12	8-719-911-19	DIODE 1SS119
D13	8-719-911-19	DIODE 1SS119
D15	8-719-911-19	DIODE 1SS119
D16	8-719-911-19	DIODE 1SS119
D101	8-719-911-19	DIODE 1SS119
D102	8-719-908-20	DIODE ERC88-009
D103	8-719-908-20	DIODE ERC88-009
D104	8-719-911-19	DIODE 1SS119
D105	8-719-908-20	DIODE ERC88-009
D106	8-719-908-20	DIODE ERC88-009
D201	8-719-110-41	DIODE RD15ESB2
D202	8-719-109-66	DIODE RD3.3ESB2
D203	8-719-911-19	DIODE 1SS119
D204	8-719-911-19	DIODE 1SS119
D205	8-719-110-41	DIODE RD15ESB2
D206	8-719-109-66	DIODE RD3.3ESB2
D207	8-719-911-19	DIODE 1SS119
D208	8-719-911-19	DIODE 1SS119
D209	8-719-110-41	DIODE RD15ESB2
D210	8-719-109-66	DIODE RD3.3ESB2
D211	8-719-911-19	DIODE 1SS119
D212	8-719-911-19	DIODE 1SS119
D301	8-719-110-41	DIODE RD15ESB2
D302	8-719-109-66	DIODE RD3.3ESB2

DC

REF.NO.	PART NO.	DESCRIPTION	REMARK
D303	8-719-911-19	DIODE 1SS119	
D304	8-719-911-19	DIODE 1SS119	
D305	8-719-110-41	DIODE RD15ESB2	
D306	8-719-109-66	DIODE RD3.3ESB2	
D307	8-719-911-19	DIODE 1SS119	
D308	8-719-911-19	DIODE 1SS119	
D309	8-719-110-41	DIODE RD15ESB2	
D310	8-719-109-66	DIODE RD3.3ESB2	
D311	8-719-911-19	DIODE 1SS119	
D312	8-719-911-19	DIODE 1SS119	
		<CONNECTOR>	
DC-1	*1-564-514-11	PLUG, CONNECTOR 11P	
DC-2	*1-564-509-11	PLUG, CONNECTOR 6P	
DC-3	*1-564-515-11	PLUG, CONNECTOR 12P	
DC-4	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-5	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-6	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-7	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-8	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-9	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-10	*1-564-508-11	PLUG, CONNECTOR 5P	
DC-11	*1-564-508-11	PLUG, CONNECTOR 5P	
DC-12	*1-564-508-11	PLUG, CONNECTOR 5P	
DC-13	*1-564-509-11	PLUG, CONNECTOR 6P	
DC-14	1-508-742-00	PIN, CONNECTOR 3P	
DC-15	1-508-742-00	PIN, CONNECTOR 3P	
		<FERRITE BEAD>	
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB4	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
		<IC>	
IC1	8-759-701-79	IC NJM7812FA	
IC2	8-759-929-65	IC LM7912CT	
IC3	8-759-945-58	IC RC4558P	
IC4	8-759-113-13	IC UPC1498H	
IC5	8-759-945-58	IC RC4558P	
IC6	8-759-113-13	IC UPC1498H	
IC7	8-759-945-58	IC RC4558P	
IC8	8-759-113-13	IC UPC1498H	
IC9	8-759-945-58	IC RC4558P	
IC101	8-759-109-82	IC UPC814C	
IC102	8-759-109-82	IC UPC814C	
IC103	8-759-109-82	IC UPC814C	
IC201	8-759-973-02	IC LM6364N	
IC202	8-759-973-02	IC LM6364N	
IC203	8-759-973-02	IC LM6364N	
IC301	8-759-973-02	IC LM6364N	
IC302	8-759-973-02	IC LM6364N	
IC303	8-759-973-02	IC LM6364N	
		<COIL>	
L103	1-459-155-00	COIL (WITH CORE) 45UH	
L104	1-459-155-00	COIL (WITH CORE) 45UH	
		<TRANSISTOR>	
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4	8-729-900-89	TRANSISTOR DTC144ES	
Q5	8-729-900-89	TRANSISTOR DTC144ES	
Q6	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-900-89	TRANSISTOR DTC144ES	
Q9	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q10	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q11	8-729-900-89	TRANSISTOR DTC144ES	
Q13	8-729-900-89	TRANSISTOR DTC144ES	
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q102	8-729-105-74	TRANSISTOR 2SK523-M1	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q105	8-729-142-68	TRANSISTOR 2SJ143	
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q107	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q108	8-729-142-69	TRANSISTOR 2SK817	
Q201	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q202	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q203	8-729-142-74	TRANSISTOR 2SD1977	
Q204	8-729-142-70	TRANSISTOR 2SB1315	
Q205	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q206	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q207	8-729-142-74	TRANSISTOR 2SD1977	
Q208	8-729-142-70	TRANSISTOR 2SB1315	
Q209	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q210	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q211	8-729-142-74	TRANSISTOR 2SD1977	
Q212	8-729-142-70	TRANSISTOR 2SB1315	
Q301	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q302	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q303	8-729-142-74	TRANSISTOR 2SD1977	
Q304	8-729-142-70	TRANSISTOR 2SB1315	
Q305	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q306	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q307	8-729-142-74	TRANSISTOR 2SD1977	
Q308	8-729-142-70	TRANSISTOR 2SB1315	
Q309	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q310	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q311	8-729-142-74	TRANSISTOR 2SD1977	
Q312	8-729-142-70	TRANSISTOR 2SB1315	
		<RESISTOR>	
R1	1-215-463-00	METAL 56K 1% 1/4Ω	
R2	1-215-445-00	METAL 10K 1% 1/4Ω	
R3	1-215-445-00	METAL 10K 1% 1/4Ω	
R4	1-214-800-11	METAL 2.2 1% 1/2Ω	
R5	1-214-800-11	METAL 2.2 1% 1/2Ω	
R6	1-215-429-00	METAL 2.2K 1% 1/4Ω	
R7	1-215-421-00	METAL 1K 1% 1/4Ω	
R8	1-215-898-11	METAL OXIDE 10K 5% 2W	F
R9	1-249-433-11	CARBON 22K 5% 1/4Ω	
R10	1-249-417-11	CARBON 1K 5% 1/4Ω	
R11	1-249-441-11	CARBON 100K 5% 1/4Ω	
R12	1-249-429-11	CARBON 10K 5% 1/4Ω	
R13	1-249-429-11	CARBON 10K 5% 1/4Ω	
R14	1-249-429-11	CARBON 10K 5% 1/4Ω	
R15	1-215-463-00	METAL 56K 1% 1/4Ω	
R16	1-215-445-00	METAL 10K 1% 1/4Ω	
R17	1-215-445-00	METAL 10K 1% 1/4Ω	
R18	1-214-800-11	METAL 2.2 1% 1/2Ω	
R19	1-214-800-11	METAL 2.2 1% 1/2Ω	

DC

REF.NO.	PART NO.	DESCRIPTION				REMARK
R20	1-215-429-00	METAL	2.2K	1%	1/4W	
R21	1-215-421-00	METAL	1K	1%	1/4W	
R22	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R23	1-249-433-11	CARBON	22K	5%	1/4W	
R24	1-249-417-11	CARBON	1K	5%	1/4W	
R25	1-249-441-11	CARBON	100K	5%	1/4W	
R26	1-249-429-11	CARBON	10K	5%	1/4W	
R27	1-249-429-11	CARBON	10K	5%	1/4W	
R28	1-249-429-11	CARBON	10K	5%	1/4W	
R29	1-215-463-00	METAL	56K	1%	1/4W	
R30	1-215-445-00	METAL	10K	1%	1/4W	
R31	1-215-445-00	METAL	10K	1%	1/4W	
R32	1-214-800-11	METAL	2.2	1%	1/2W	
R33	1-214-800-11	METAL	2.2	1%	1/2W	
R34	1-215-429-00	METAL	2.2K	1%	1/4W	
R35	1-215-421-00	METAL	1K	1%	1/4W	
R36	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R37	1-249-433-11	CARBON	22K	5%	1/4W	
R38	1-249-417-11	CARBON	1K	5%	1/4W	
R39	1-249-441-11	CARBON	100K	5%	1/4W	
R40	1-249-429-11	CARBON	10K	5%	1/4W	
R41	1-249-429-11	CARBON	10K	5%	1/4W	
R42	1-249-429-11	CARBON	10K	5%	1/4W	
R43	1-249-429-11	CARBON	10K	5%	1/4W	
R44	1-249-429-11	CARBON	10K	5%	1/4W	
R45	1-249-417-11	CARBON	1K	5%	1/4W	
R46	1-249-433-11	CARBON	22K	5%	1/4W	
R47	1-249-433-11	CARBON	22K	5%	1/4W	
R48	1-249-429-11	CARBON	10K	5%	1/4W	
R49	1-249-429-11	CARBON	10K	5%	1/4W	
R50	1-249-437-11	CARBON	47K	5%	1/4W	
R51	1-249-417-11	CARBON	1K	5%	1/4W	
R52	1-249-417-11	CARBON	1K	5%	1/4W	
R55	1-215-883-11	METAL OXIDE	33	5%	2W	F
R56	1-249-433-11	CARBON	22K	5%	1/4W	
R57	1-249-429-11	CARBON	10K	5%	1/4W	
R58	1-249-417-11	CARBON	1K	5%	1/4W	
R59	1-216-449-11	METAL OXIDE	56	5%	2W	F
R61	1-215-463-00	METAL	56K	1%	1/4W	
R62	1-215-463-00	METAL	56K	1%	1/4W	
R63	1-215-463-00	METAL	56K	1%	1/4W	
R64	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R65	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R66	1-249-421-11	CARBON	2.2K	5%	1/4W	
R67	1-249-429-11	CARBON	10K	5%	1/4W	
R68	1-249-433-11	CARBON	22K	5%	1/4W	
R69	1-249-429-11	CARBON	10K	5%	1/4W	
R72	1-249-429-11	CARBON	10K	5%	1/4W	
R73	1-249-441-11	CARBON	100K	5%	1/4W	
R74	1-249-429-11	CARBON	10K	5%	1/4W	
R75	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R76	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R77	1-249-417-11	CARBON	1K	5%	1/4W	
R79	1-249-429-11	CARBON	10K	5%	1/4W	
R80	1-249-393-11	CARBON	10	5%	1/4W	
R81	1-249-393-11	CARBON	10	5%	1/4W	
R82	1-249-429-11	CARBON	10K	5%	1/4W	
R101	1-249-417-11	CARBON	1K	5%	1/4W	
R102	1-249-417-11	CARBON	1K	5%	1/4W	
R103	1-249-419-11	CARBON	1.5K	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-249-425-11	CARBON	4.7K	5%	1/4W	
R106	1-249-417-11	CARBON	1K	5%	1/4W	
R107	1-249-393-11	CARBON	10	5%	1/4W	F

REF.NO.	PART NO.	DESCRIPTION				REMARK
R108	1-249-393-11	CARBON	10	5%	1/4W	F
R109	1-247-807-31	CARBON	100	5%	1/4W	
R110	1-249-393-11	CARBON	10	5%	1/4W	
R111	1-249-417-11	CARBON	1K	5%	1/4W	
R112	1-249-393-11	CARBON	10	5%	1/4W	F
R113	1-249-393-11	CARBON	10	5%	1/4W	F
R114	1-247-807-31	CARBON	100	5%	1/4W	
R115	1-249-393-11	CARBON	10	5%	1/4W	
R201	1-215-425-00	METAL	1.5K	1%	1/4W	
R202	1-215-445-00	METAL	10K	1%	1/4W	
R203	1-215-421-00	METAL	1K	1%	1/4W	
R204	1-215-417-00	METAL	680	1%	1/4W	
R205	1-215-439-00	METAL	5.6K	1%	1/4W	
R206	1-215-421-00	METAL	1K	1%	1/4W	
R207	1-215-421-00	METAL	1K	1%	1/4W	
R208	1-214-814-11	METAL	8.2	1%	1/2W	
R209	1-214-814-11	METAL	8.2	1%	1/2W	
R210	1-214-814-11	METAL	8.2	1%	1/2W	
R211	1-214-814-11	METAL	8.2	1%	1/2W	
R212	1-214-814-11	METAL	8.2	1%	1/2W	
R213	1-214-814-11	METAL	8.2	1%	1/2W	
R214	1-249-435-11	CARBON	33K	5%	1/4W	
R215	1-249-426-11	CARBON	5.6K	5%	1/4W	
R216	1-249-415-11	CARBON	680	5%	1/4W	F
R217	1-249-427-11	CARBON	6.8K	5%	1/4W	
R218	1-247-811-31	CARBON	150	5%	1/4W	
R219	1-249-403-11	CARBON	68	5%	1/4W	F
R221	1-216-369-00	METAL OXIDE	1	5%	2W	F
R222	1-216-369-00	METAL OXIDE	1	5%	2W	F
R223	1-215-885-00	METAL OXIDE	68	5%	2W	F
R224	1-215-425-00	METAL	1.5K	1%	1/4W	
R225	1-215-445-00	METAL	10K	1%	1/4W	
R226	1-215-421-00	METAL	1K	1%	1/4W	
R227	1-215-417-00	METAL	680	1%	1/4W	
R228	1-215-439-00	METAL	5.6K	1%	1/4W	
R229	1-215-421-00	METAL	1K	1%	1/4W	
R230	1-215-421-00	METAL	1K	1%	1/4W	
R231	1-214-814-11	METAL	8.2	1%	1/2W	
R232	1-214-814-11	METAL	8.2	1%	1/2W	
R233	1-214-814-11	METAL	8.2	1%	1/2W	
R234	1-214-814-11	METAL	8.2	1%	1/2W	
R235	1-214-814-11	METAL	8.2	1%	1/2W	
R236	1-214-814-11	METAL	8.2	1%	1/2W	
R237	1-249-435-11	CARBON	33K	5%	1/4W	
R238	1-249-426-11	CARBON	5.6K	5%	1/4W	
R239	1-249-415-11	CARBON	680	5%	1/4W	F
R240	1-249-427-11	CARBON	6.8K	5%	1/4W	
R241	1-247-811-31	CARBON	150	5%	1/4W	
R242	1-249-403-11	CARBON	68	5%	1/4W	F
R244	1-216-369-00	METAL OXIDE	1	5%	2W	F
R245	1-216-369-00	METAL OXIDE	1	5%	2W	F
R246	1-215-885-00	METAL OXIDE	68	5%	2W	F
R247	1-215-425-00	METAL	1.5K	1%	1/4W	
R248	1-215-445-00	METAL	10K	1%	1/4W	
R249	1-215-421-00	METAL	1K	1%	1/4W	
R250	1-215-417-00	METAL	680	1%	1/4W	
R251	1-215-439-00	METAL	5.6K	1%	1/4W	
R252	1-215-421-00	METAL	1K	1%	1/4W	
R253	1-215-421-00	METAL	1K	1%	1/4W	
R254	1-214-814-11	METAL	8.2	1%	1/2W	
R255	1-214-814-11	METAL	8.2	1%	1/2W	
R256	1-214-814-11	METAL	8.2	1%	1/2W	
R257	1-214-814-11	METAL	8.2	1%	1/2W	

DC DE

REF.NO.	PART NO.	DESCRIPTION				REMARK
R258	1-214-814-11	METAL	8.2	1%	1/2W	
R259	1-214-814-11	METAL	8.2	1%	1/2W	
R260	1-249-435-11	CARBON	33K	5%	1/4W	
R261	1-249-426-11	CARBON	5.6K	5%	1/4W	
R262	1-249-415-11	CARBON	680	5%	1/4W	F
R263	1-249-427-11	CARBON	6.8K	5%	1/4W	
R264	1-247-811-31	CARBON	150	5%	1/4W	
R265	1-249-403-11	CARBON	68	5%	1/4W	F
R267	1-216-369-00	METAL OXIDE	1	5%	2W	F
R268	1-216-369-00	METAL OXIDE	1	5%	2W	F
R269	1-215-885-00	METAL OXIDE	68	5%	2W	F
R270	1-247-807-31	CARBON	100	5%	1/4W	
R271	1-247-807-31	CARBON	100	5%	1/4W	
R272	1-247-807-31	CARBON	100	5%	1/4W	
R273	1-247-807-31	CARBON	100	5%	1/4W	
R274	1-247-807-31	CARBON	100	5%	1/4W	
R275	1-247-807-31	CARBON	100	5%	1/4W	
R301	1-215-427-00	METAL	1.8K	1%	1/4W	
R302	1-215-445-00	METAL	10K	1%	1/4W	
R303	1-215-421-00	METAL	1K	1%	1/4W	
R304	1-215-411-00	METAL	390	1%	1/4W	
R305	1-215-435-00	METAL	3.9K	1%	1/4W	
R306	1-215-421-00	METAL	1K	1%	1/4W	
R307	1-215-421-00	METAL	1K	1%	1/4W	
R308	1-214-808-11	METAL	4.7	1%	1/2W	
R309	1-214-808-11	METAL	4.7	1%	1/2W	
R310	1-214-808-11	METAL	4.7	1%	1/2W	
R311	1-214-808-11	METAL	4.7	1%	1/2W	
R312	1-214-808-11	METAL	4.7	1%	1/2W	
R313	1-214-808-11	METAL	4.7	1%	1/2W	
R314	1-249-435-11	CARBON	33K	5%	1/4W	
R315	1-249-426-11	CARBON	5.6K	5%	1/4W	
R316	1-249-415-11	CARBON	680	5%	1/4W	F
R317	1-249-427-11	CARBON	6.8K	5%	1/4W	
R318	1-247-811-31	CARBON	150	5%	1/4W	
R319	1-249-403-11	CARBON	68	5%	1/4W	F
R321	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R322	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R323	1-215-885-00	METAL OXIDE	68	5%	2W	F
R324	1-215-427-00	METAL	1.8K	1%	1/4W	
R325	1-215-445-00	METAL	10K	1%	1/4W	
R326	1-215-421-00	METAL	1K	1%	1/4W	
R327	1-215-411-00	METAL	390	1%	1/4W	
R328	1-215-435-00	METAL	3.9K	1%	1/4W	
R329	1-215-421-00	METAL	1K	1%	1/4W	
R330	1-215-421-00	METAL	1K	1%	1/4W	
R331	1-214-808-11	METAL	4.7	1%	1/2W	
R332	1-214-808-11	METAL	4.7	1%	1/2W	
R333	1-214-808-11	METAL	4.7	1%	1/2W	
R334	1-214-808-11	METAL	4.7	1%	1/2W	
R335	1-214-808-11	METAL	4.7	1%	1/2W	
R336	1-214-808-11	METAL	4.7	1%	1/2W	
R337	1-249-435-11	CARBON	33K	5%	1/4W	
R338	1-249-426-11	CARBON	5.6K	5%	1/4W	
R339	1-249-415-11	CARBON	680	5%	1/4W	F
R340	1-249-427-11	CARBON	6.8K	5%	1/4W	
R341	1-247-811-31	CARBON	150	5%	1/4W	
R342	1-249-403-11	CARBON	68	5%	1/4W	F
R344	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R345	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R346	1-215-885-00	METAL OXIDE	68	5%	2W	F
R347	1-215-427-00	METAL	1.8K	1%	1/4W	
R348	1-215-445-00	METAL	10K	1%	1/4W	
R349	1-215-421-00	METAL	1K	1%	1/4W	
R350	1-215-411-00	METAL	390	1%	1/4W	
R351	1-215-435-00	METAL	3.9K	1%	1/4W	
R352	1-215-421-00	METAL	1K	1%	1/4W	
R353	1-215-421-00	METAL	1K	1%	1/4W	
R354	1-214-808-11	METAL	4.7	1%	1/2W	
R355	1-214-808-11	METAL	4.7	1%	1/2W	
R356	1-214-808-11	METAL	4.7	1%	1/2W	
R357	1-214-808-11	METAL	4.7	1%	1/2W	
R358	1-214-808-11	METAL	4.7	1%	1/2W	
R359	1-214-808-11	METAL	4.7	1%	1/2W	
R360	1-249-435-11	CARBON	33K	5%	1/4W	
R361	1-249-426-11	CARBON	5.6K	5%	1/4W	
R362	1-249-415-11	CARBON	680	5%	1/4W	F
R363	1-249-427-11	CARBON	6.8K	5%	1/4W	
R364	1-249-404-00	CARBON	82	5%	1/4W	
R365	1-249-400-11	CARBON	39	5%	1/4W	F
R367	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R368	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R369	1-215-885-00	METAL OXIDE	68	5%	2W	F
R370	1-247-807-31	CARBON	100	5%	1/4W	
R371	1-247-807-31	CARBON	100	5%	1/4W	
R372	1-247-807-31	CARBON	100	5%	1/4W	
R373	1-247-807-31	CARBON	100	5%	1/4W	
R374	1-247-807-31	CARBON	100	5%	1/4W	
R375	1-247-807-31	CARBON	100	5%	1/4W	

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*A-1346-208-A DE BOARD, COMPLETE
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<CAPACITOR>

C501	1-126-157-11	ELECT	10MF	20%	16V
C502	1-126-157-11	ELECT	10MF	20%	16V
C503	1-126-157-11	ELECT	10MF	20%	16V
C504	1-126-157-11	ELECT	10MF	20%	16V
C505	1-126-157-11	ELECT	10MF	20%	16V
C506	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C507	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C508	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C509	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C510	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C511	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C512	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C513	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C514	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C515	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C516	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C517	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C518	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C519	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C520	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C521	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C522	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C523	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C524	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C525	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C526	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C527	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C528	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C529	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C530	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C531	1-163-031-11	CERAMIC CHIP	0.01MF		50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C532	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C533	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C534	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C535	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C536	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C537	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C538	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C539	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C540	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C541	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C542	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C543	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C544	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C545	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C546	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C547	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C548	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C549	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C550	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C551	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C552	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C553	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C554	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C555	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C556	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C557	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C558	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C559	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C560	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C561	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C562	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C563	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C564	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C565	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C566	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C567	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C568	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C569	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C570	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C571	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C572	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C573	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C574	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C575	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C576	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C577	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C578	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C580	1-163-031-11	CERAMIC CHIP 0.01MF	50V

<CONNECTOR>

DE-501*	1-568-984-11	CONNECTOR, MALE 96P

<IC>

IC501	8-759-926-48	IC SN74HC244ANS
IC502	8-759-926-48	IC SN74HC244ANS
IC503	8-759-926-48	IC SN74HC244ANS
IC504	8-759-926-48	IC SN74HC244ANS
IC505	8-759-926-11	IC SN74HC138ANS
IC506	8-759-926-11	IC SN74HC138ANS
IC507	8-759-926-11	IC SN74HC138ANS
IC508	8-759-926-11	IC SN74HC138ANS
IC509	8-759-926-11	IC SN74HC138ANS
IC510	8-759-995-64	IC MB86023
IC511	8-759-995-64	IC MB86023
IC512	8-759-995-64	IC MB86023
IC513	8-759-995-64	IC MB86023
IC514	8-759-995-64	IC MB86023
IC515	8-759-995-64	IC MB86023
IC516	8-759-995-64	IC MB86023
IC517	8-759-995-64	IC MB86023
IC518	8-759-995-64	IC MB86023
IC519	8-759-995-64	IC MB86023
IC520	8-759-995-64	IC MB86023
IC521	8-759-995-64	IC MB86023
IC522	8-759-995-64	IC MB86023
IC523	8-759-995-64	IC MB86023
IC524	8-759-995-64	IC MB86023
IC525	8-759-995-64	IC MB86023
IC526	8-759-995-64	IC MB86023
IC527	8-759-995-64	IC MB86023
IC528	8-759-995-64	IC MB86023
IC529	8-759-995-64	IC MB86023
IC533	8-759-995-64	IC MB86023
IC534	8-759-995-64	IC MB86023
IC535	8-759-995-64	IC MB86023
IC536	8-759-995-64	IC MB86023
IC537	8-759-908-15	IC TL431CLP
IC538	8-759-114-06	IC UPC814G2-1
IC539	8-759-114-06	IC UPC814G2-1
IC540	8-759-114-06	IC UPC814G2-1

<COIL>

L501	1-459-155-00	COIL (WITH CORE) 45UH
L502	1-459-155-00	COIL (WITH CORE) 45UH

<TRANSISTOR>

Q501	8-729-205-96	TRANSISTOR 2SC3668-O
Q502	8-729-205-95	TRANSISTOR 2SA1428-Y

<RESISTOR>

R501	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R502	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R503	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R504	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R505	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R506	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R507	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R508	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R510	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R511	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R514	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R515	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R516	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R517	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R518	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R519	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R520	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R521	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R522	1-216-049-00	METAL GLAZE	1K	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R523	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R524	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R525	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R526	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R527	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R528	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R529	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R530	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R531	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R532	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R533	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R534	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R535	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R536	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R537	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R538	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R539	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R540	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R541	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R542	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R543	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R544	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R545	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R546	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R547	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R548	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R549	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R550	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R551	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R552	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R553	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R554	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R555	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R556	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R557	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R558	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R559	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R560	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R561	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R562	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R563	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R564	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R565	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R566	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R567	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R568	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R569	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R570	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R571	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R572	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R573	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R574	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R575	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R576	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R577	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R578	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R579	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R580	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R581	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R582	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R583	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R584	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R585	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R586	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R587	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R588	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R589	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R590	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R591	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R592	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R593	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R594	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R595	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R596	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R597	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R598	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R599	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R600	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R601	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R602	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R603	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R604	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R605	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R606	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R607	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R608	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R609	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R610	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R611	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R612	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R613	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R614	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R615	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R635	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R636	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R637	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R638	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R639	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R640	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R641	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R642	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R643	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R644	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R645	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R646	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R647	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R648	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R649	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R650	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R651	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R652	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R653	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R654	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R655	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R656	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R657	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R658	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R659	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R660	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R661	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R662	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R663	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R664	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R665	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R666	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R667	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R668	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	

DE KA K

REF.NO.	PART NO.	DESCRIPTION				REMARK
R689	1-216-619-11	METAL CHIP	47	0.50%	1/10W	
R690	1-216-619-11	METAL CHIP	47	0.50%	1/10W	
**********						
	*A-1380-374-A	KA BOARD, COMPLETE				
		**********				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C501	1-124-910-11	ELECT	47MF	20%	50V	
C502	1-101-004-00	CERAMIC	0.01MF		50V	
C503	1-124-907-11	ELECT	10MF	20%	50V	
C504	1-124-927-11	ELECT	4.7MF	20%	50V	
C505	1-101-002-00	CERAMIC	0.0022MF		50V	
C506	1-124-477-11	ELECT	47MF	20%	16V	
C507	1-124-477-11	ELECT	47MF	20%	16V	
C508	1-126-103-11	ELECT	470MF	20%	16V	
C509	1-126-103-11	ELECT	470MF	20%	16V	
C510	1-136-169-00	FILM	0.22MF	5%	50V	
C511	1-136-169-00	FILM	0.22MF	5%	50V	
C512	1-124-557-11	ELECT	1000MF	20%	25V	
C513	1-124-911-11	ELECT	220MF	20%	50V	
		<DIODE>				
D501	8-719-900-95	DIODE V09G				
		<IC>				
IC501	8-759-101-77	IC UPC1241H				
		<CONNECTOR>				
KA-501	1-564-517-11	PLUG, CONNECTOR 2P				
KA-502	*1-564-520-11	PLUG, CONNECTOR 5P				
		<TRANSISTOR>				
Q501	8-729-112-61	TRANSISTOR 2SA1441-L				
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		<RESISTOR>				
R501	1-249-423-11	CARBON	3.3K	5%	1/4W	
R502	1-249-421-11	CARBON	2.2K	5%	1/4W	
R503	1-247-807-31	CARBON	100	5%	1/4W	
R504	1-249-421-11	CARBON	2.2K	5%	1/4W	
R505	1-249-419-11	CARBON	1.5K	5%	1/4W	
R506	1-249-381-11	CARBON	1	5%	1/4W	
R507	1-247-704-11	CARBON	220	5%	1/4W	F
R508	1-249-417-11	CARBON	1K	5%	1/4W	
R509	1-249-451-11	CARBON	2.2	5%	1/4W	F
**********						
	*A-1380-466-A	K BOARD, COMPLETE				
		**********				
	*4-034-120-01	HOLDER (A)				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C201	1-124-907-11	ELECT	10MF	20%	50V	
C202	1-124-907-11	ELECT	10MF	20%	50V	
C203	1-124-907-11	ELECT	10MF	20%	50V	
C204	1-101-004-00	CERAMIC	0.01MF		50V	
C205	1-101-004-00	CERAMIC	0.01MF		50V	
C206	1-124-907-11	ELECT	10MF	20%	50V	
C207	1-124-794-51	ELECT	4.7MF	20%	100V	
C208	1-102-050-00	CERAMIC	0.01MF		500V	
C209	1-124-903-11	ELECT	1MF	20%	50V	
C210	1-136-173-00	FILM	0.47MF	5%	50V	
C211	1-124-910-11	ELECT	47MF	20%	50V	
C212	1-124-910-11	ELECT	47MF	20%	50V	
C213	1-124-907-11	ELECT	10MF	20%	50V	
C214	1-124-907-11	ELECT	10MF	20%	50V	
		<CONNECTOR>				
CN291	1-564-523-11	PLUG, CONNECTOR 8P				
CN292	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN293	*1-564-517-11	PLUG, CONNECTOR 2P				
CN294	*1-564-518-11	PLUG, CONNECTOR 3P				
		<DIODE>				
D201	8-719-110-17	DIODE RD10ESB2				
D202	8-719-110-17	DIODE RD10ESB2				
D203	8-719-948-45	DIODE ERA22-08				
D204	8-719-911-19	DIODE 1SS119				
D205	8-719-911-19	DIODE 1SS119				
		<IC>				
IC201	8-759-109-82	IC UPC814C				
IC202	8-759-109-82	IC UPC814C				
		<COIL>				
L201	1-459-155-00	COIL (WITH CORE) 45UH				
		<TRANSISTOR>				
Q201	8-729-112-61	TRANSISTOR 2SA1441-L				
Q202	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q203	8-729-143-42	TRANSISTOR 2SK929				
Q204	8-729-143-42	TRANSISTOR 2SK929				
Q205	8-729-142-74	TRANSISTOR 2SD1977				
Q206	8-729-142-70	TRANSISTOR 2SB1315				
		<RESISTOR>				
R201	1-215-429-00	METAL	2.2K	1%	1/4W	
R202	1-215-429-00	METAL	2.2K	1%	1/4W	
R203	1-215-461-00	METAL	47K	1%	1/4W	
R204	1-215-429-00	METAL	2.2K	1%	1/4W	
R205	1-249-417-11	CARBON	1K	5%	1/4W	
R206	1-215-445-00	METAL	10K	1%	1/4W	
R207	1-249-425-11	CARBON	4.7K	5%	1/4W	
R208	1-215-453-00	METAL	22K	1%	1/4W	
R209	1-215-453-00	METAL	22K	1%	1/4W	
R210	1-202-818-00	SOLID	1K	20%	1/2W	
R211	1-202-818-00	SOLID	1K	20%	1/2W	
R212	1-249-429-11	CARBON	10K	5%	1/4W	
R213	1-249-441-11	CARBON	100K	5%	1/4W	
R214	1-215-491-00	METAL	820K	1%	1/4W	
R215	1-215-902-11	METAL OXIDE	47K	5%	2W	F

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R216	1-215-409-00	METAL	330	1%	1/4W	
R217	1-249-425-11	CARBON	4.7K	5%	1/4W	
R218	1-249-429-11	CARBON	10K	5%	1/4W	
R219	1-247-713-11	CARBON	1K	5%	1/4W	F
R220	1-247-700-11	CARBON	100	5%	1/4W	F
R221	1-202-842-11	SOLID	220K	20%	1/2W	
R222	1-247-713-11	CARBON	1K	5%	1/4W	F
R223	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R224	1-202-842-11	SOLID	220K	20%	1/2W	
R225	1-247-713-11	CARBON	1K	5%	1/4W	F
R226	1-249-389-11	CARBON	4.7	5%	1/4W	F
R227	1-249-451-11	CARBON	2.2	5%	1/4W	F
R228	1-215-425-00	METAL	1.5K	1%	1/4W	
R229	1-249-437-11	CARBON	47K	5%	1/4W	
R230	1-215-407-00	METAL	270	1%	1/4W	
R231	1-215-435-00	METAL	3.9K	1%	1/4W	
R232	1-247-700-11	CARBON	100	5%	1/4W	F
R233	1-247-700-11	CARBON	100	5%	1/4W	F
R234	1-249-447-11	CARBON	1	5%	1/4W	F
R235	1-249-447-11	CARBON	1	5%	1/4W	F
R236	1-247-713-11	CARBON	1K	5%	1/4W	F
R237	1-249-433-11	CARBON	22K	5%	1/4W	
R238	1-249-451-11	CARBON	2.2	5%	1/4W	F

<SPARK GAP>

SG201	1-519-063-XX	DISCHARGING GAP
SG202	1-519-063-XX	DISCHARGING GAP

<TRANSFORMER>

T201	1-424-287-11	TRANSFORMER, DYNAMIC FOCUS

****

*A-1390-255-A NA BOARD, COMPLETE
****

*4-398-771-01	CAP, LED	

<CAPACITOR>

C601	1-124-477-11	ELECT	47MF	20%	16V

<DIODE>

D601	8-719-955-04	DIODE PY5504S-1
D602	8-719-920-66	DIODE SLR-54VC12

<IC>

IC601	8-741-148-33	IC SBX1483-59

<CONNECTOR>

NA-1	*1-564-519-11	PLUG, CONNECTOR 4P

<TRANSISTOR>

Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R601	1-247-807-31	CARBON	100	5%	1/4W
R602	1-249-409-11	CARBON	220	5%	1/4W
R603	1-247-807-31	CARBON	100	5%	1/4W
R604	1-249-433-11	CARBON	22K	5%	1/4W
R605	1-249-429-11	CARBON	10K	5%	1/4W

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*A-1390-256-A NB BOARD, COMPLETE
****

<CAPACITOR>

C701	1-124-477-11	ELECT	47MF	20%	16V

<IC>

IC701	8-741-139-80	IC BX-1398

<CONNECTOR>

NB-1	*1-564-507-11	PLUG, CONNECTOR 4P

****

*A-1390-257-A L BOARD, COMPLETE
****

<CAPACITOR>

C301	1-101-004-00	CERAMIC	0.01MF		50V
C304	1-124-907-11	ELECT	10MF	20%	50V

<IC>

IC301	8-759-233-33	IC TC74HC541AP
IC302	8-759-044-95	IC MC14495P1
IC303	8-759-044-95	IC MC14495P1
IC304	8-719-901-68	DIODE GL-6R202

<COIL>

L301	1-459-155-00	COIL (WITH CORE) 45UH

<CONNECTOR>

L-301	*1-564-526-11	PLUG, CONNECTOR 11P
L-302	1-564-517-11	PLUG, CONNECTOR 2P

<TRANSISTOR>

Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R301	1-249-441-11	CARBON	100K	5%	1/4W
R302	1-249-441-11	CARBON	100K	5%	1/4W

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*A-1394-325-A Y BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*1-526-950-11	SOCKET, IC 64P			
	*1-563-949-11	SOCKET, SIL 8P			
		<SOCKET>			
BVT800	*1-526-654-21	SOCKET, IC (DP) 16P			
BVT800	*1-526-659-00	SOCKET, IC (DP) 28P			
		<CAPACITOR>			
C2	1-124-927-11	ELECT 4.7MF	20%	50V	
C3	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C4	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C5	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C6	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C7	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C8	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C9	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C10	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C11	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C12	1-163-239-11	CERAMIC CHIP 33PF	5%	50V	
C13	1-163-239-11	CERAMIC CHIP 33PF	5%	50V	
C14	1-163-036-00	CERAMIC CHIP 0.068MF		50V	
C15	1-164-344-11	CERAMIC CHIP 0.068MF	10%	25V	
C16	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C17	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C18	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C19	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C20	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C21	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C22	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	
C23	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C24	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C25	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C26	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C27	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C28	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C29	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C30	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C31	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C32	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C33	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C34	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C35	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C36	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C37	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C38	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C39	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C40	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C41	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C42	1-124-477-11	ELECT 47MF	20%	16V	
C43	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C45	1-163-089-00	CERAMIC CHIP 6PF	0.5PF	50V	
C46	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	
C47	1-124-119-00	ELECT 330MF	20%	16V	
C48	1-124-477-11	ELECT 47MF	20%	16V	
C49	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C50	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C51	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C52	1-126-103-11	ELECT 470MF	20%	16V	
C53	1-124-477-11	ELECT 47MF	20%	16V	
C54	1-126-101-11	ELECT 100MF	20%	16V	
C55	1-126-101-11	ELECT 100MF	20%	16V	
C56	1-126-101-11	ELECT 100MF	20%	16V	
C57	1-163-227-11	CERAMIC CHIP 10PF	0.5PF	50V	
C58	1-163-227-11	CERAMIC CHIP 10PF	0.5PF	50V	
C59	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C60	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C61	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C62	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C63	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C64	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C65	1-163-036-00	CERAMIC CHIP 0.068MF		50V	
C67	1-124-119-00	ELECT 330MF	20%	16V	
C68	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C69	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	
C70	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C71	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C72	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C73	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C74	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C75	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C76	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C77	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C78	1-124-907-11	ELECT 10MF	20%	50V	
C79	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C80	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C81	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C82	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C83	1-124-907-11	ELECT 10MF	20%	50V	
C84	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C85	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C86	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C87	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C88	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C90	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C91	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C92	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
		<DIODE>			
D2	8-719-971-20	DIODE ERC38-06			
D4	8-719-820-12	DIODE TLR224			
D5	8-719-104-34	DIODE 1S2836			
D7	8-719-400-18	DIODE MA152WK			
D8	8-719-400-18	DIODE MA152WK			
D9	8-719-104-34	DIODE 1S2836			
		<IC>			
IC1	8-759-320-49	IC HD64180R1P8			
IC2	8-759-748-29	IC MBM27C512-20			
IC3	8-752-331-00	IC CXK5864BM-12L			
IC4	8-759-196-XX	IC UPD28C64ACZ-15			
IC5	8-759-032-17	IC MC74HC14AF			
IC6	8-759-239-55	IC TC74HC123AF			
IC7	8-759-008-21	IC MC74HC541F			
IC8	8-759-008-21	IC MC74HC541F			
IC9	8-759-995-97	IC MB8855-1314N			
IC10	8-759-984-56	IC MB670840PF			
IC11	8-759-984-59	IC MB654842UPF			
IC12	8-759-984-58	IC MB671469PF			
IC13	8-759-181-02	IC MB605E66			
IC14	8-752-322-10	IC CXK5814P-45L			
IC15	8-752-333-84	IC CXK3864-040M			
IC16	8-752-333-85	IC CXK3864-041M			
IC17	8-752-333-86	IC CXK3864-042M			

Y

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REF.NO.	PART NO.	DESCRIPTION	REMARK
IC18	8-759-301-24	IC HD10124	
IC19	8-759-301-24	IC HD10124	
IC20	8-752-306-51	IC CX23065A	
IC21	8-759-911-24	IC SN74S124N	
IC22	8-759-100-93	IC UPC393G2	
IC23	8-759-031-50	IC MC74F00M	
IC24	8-759-008-57	IC MC34051P	
IC25	8-759-114-06	IC UPC814G2-1	
IC26	8-759-032-32	IC MC74HC132AF	
IC27	8-759-925-98	IC SN74HC107ANS	
IC28	8-759-032-01	IC MC74HC00AF	
IC29	8-759-239-55	IC TC74HC123AF	
IC30	8-759-032-29	IC MC74HC126AF	
IC31	8-759-032-17	IC MC74HC14AF	
IC32	8-759-008-21	IC MC74HC541F	
IC33	8-759-979-65	IC RH5VA43AA	
IC34	8-759-032-41	IC MC74HC157AF	
IC35	8-759-925-54	IC LM2940CT-5.0	
		<COIL>	
L1	1-459-155-00	COIL (WITH CORE) 45UH	
L2	1-459-155-00	COIL (WITH CORE) 45UH	
L3	1-459-155-00	COIL (WITH CORE) 45UH	
L4	1-459-155-00	COIL (WITH CORE) 45UH	
		<IC LINK>	
PS1	⚠1-532-679-91	LINK, IC 0.6A	
PS2	⚠1-532-679-91	LINK, IC 0.6A	
		<TRANSISTOR>	
Q3	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4	8-729-216-22	TRANSISTOR 2SA1162-G	
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q9	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
R1	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R2	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R3	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R4	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R5	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R6	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R7	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R8	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R9	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R10	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R11	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R12	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R13	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R14	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R15	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R16	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R17	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R18	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R19	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R20	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R21	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R22	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R23	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R24	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R25	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R26	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R27	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R28	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R29	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R30	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R31	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R32	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R33	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R34	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R36	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R37	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R38	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R39	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R40	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R41	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R42	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R43	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R44	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R45	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R46	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R47	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R48	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R49	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R50	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R51	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R52	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R53	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R54	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R55	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R56	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R57	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R58	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R59	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R62	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R63	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R64	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R65	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R66	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R67	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R68	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R69	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R70	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R71	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R72	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R73	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R74	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R75	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R76	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R77	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R78	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R79	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R80	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R81	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R82	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R83	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R84	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R85	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R86	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R87	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R88	1-216-045-00	METAL GLAZE 680 5% 1/10W	

Y

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R89	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R90	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R91	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R92	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R93	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R100	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R101	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R102	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R103	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R104	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R105	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R106	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R107	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R108	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R109	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R110	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R111	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R112	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R113	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R115	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R116	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R118	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R119	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R120	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R122	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R123	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R124	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R125	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R126	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R127	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R128	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R129	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R130	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R131	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R132	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R133	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R134	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R135	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R136	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R137	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R138	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R139	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R140	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R141	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R142	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R146	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R147	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R148	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R149	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R150	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R151	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R152	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R153	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R154	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R155	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R156	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R157	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R158	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R159	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R162	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R163	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R164	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R165	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R166	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R167	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R168	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R169	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R170	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R171	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R172	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R173	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R174	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R175	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R176	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R177	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R178	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R179	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R181	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R182	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R183	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R184	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R185	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R187	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R189	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R190	1-216-295-00	METAL GLAZE	0	5%	1/10W	

<SWITCH>

SW1	1-570-598-11	SWITCH, DIP
SW2	1-570-204-21	SWITCH, KEY BOARD

<CRYSTAL>

X1	1-578-687-11	VIBRATOR, CRYSTAL
X2	1-577-116-21	VIBRATOR, CRYSTAL
X3	1-567-192-11	OSCILLATOR, CERAMIC
X4	1-577-353-11	VIBRATOR, CERAMIC

<CONNECTOR>

Y-1	*1-568-984-11	CONNECTOR, MALE 96P

****

MISCELLANEOUS
****

⚠	1-452-730-11	DEFLECTION YOKE, SUB
⚠	1-241-744-21	RESISTOR ASSY (HIGH-VOLTAGE)
⚠	1-413-934-11	REGULATOR, SWITCHING (SOPS-1047) (VPH-1272Q ONLY)
⚠	1-413-935-11	REGULATOR, SWITCHING (SOPS-1074) (VPH-1272QM ONLY)
⚠	1-451-355-11	DEFLECTION YOKE (Y636PJ)
⚠	1-452-429-31	NECK ASSY, PICTURE TUBE (NA366)
⚠	1-453-108-11	DC BLOCK, HIGH-VOLTAGE
⚠	1-453-108-31	DC BLOCK, HIGH-VOLTAGE
	1-503-255-00	SPEAKER
	1-541-950-11	FAN, DC
	*1-555-110-00	CABLE, P-P
⚠	1-559-865-31	LEAD ASSY, HIGH-VOLTAGE
⚠	1-559-865-41	LEAD ASSY, HIGH-VOLTAGE
	*1-575-091-11	CABLE, P-P
	1-575-092-11	CONNECTOR ASSY, MULTI 14P

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-698-057-11	FAN, DC	
	⚠1-900-086-01	LEAD ASSY, HIGH-VOLTAGE	
	1-941-648-22	CONNECTOR ASSY, MICRO 2P	
V901	⚠8-736-241-05	PICTURE TUBE 07MSP(G)	
V902	⚠8-736-242-05	PICTURE TUBE 07MSP(B)	
V903	⚠8-736-243-05	PICTURE TUBE 07MSP(R)	

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ACCESSORIES AND PACKING MATERIALS
****

	*A-1280-414-A	RC BOARD, COMPLETE	
	X-4029-240-1	BAG ASSY, WASHER (T0.5)	
	X-4029-241-1	BAG ASSY, WASHER (T1.0)	
	*X-4029-335-1	PLATE ASSY, BOTTOM	
	X-4395-576-1	BAG ASSY, WASHER (T0.4)	
	X-4395-577-1	BAG ASSY, WASHER (T1.2)	
	X-4395-578-1	SPACER (0) ASSY, LENS	
	X-4395-579-1	SPACER (2) ASSY, LENS	
	1-575-100-11	CABLE, MINIATURE PLUG	
	⚠1-559-303-11	CODE, POWER(7.0A/250V)(VPH-1272QM ONLY)	
	⚠1-559-303-21	CODE, POWER(10.0A/125V)(VPH-1272Q ONLY)	
	2-357-277-01	PANEL, FRONT	
	3-562-223-00	TERMINAL BOARD, POSITIVE	
	3-703-372-28	CARD, WARRANTY (VPH-1272Q ONLY)	
	*3-704-333-01	SHEET (STANDARD), PROTECTION	
	3-758-106-21	MANUAL, INSTRUCTION	
	3-758-106-31	MANUAL, INSTRUCTION	
	3-758-106-41	MANUAL, INSTRUCTION (VPH-1272QM ONLY)	
	3-758-107-21	MANUAL, INSTRUCTION	
	3-758-107-41	MANUAL, INSTRUCTION (VPH-1272QM ONLY)	
	*4-030-571-01	CUSHION (LOWER) (ASSY)	
	*4-030-572-01	PALLET, WOODEN	
	*4-030-574-01	TRAY	
	4-032-658-01	KEY TOP	
	4-032-660-01	SHEET, RUBBER	
	4-374-469-01	FOOT, RUBBER	
	4-395-501-01	KEY TOP	
	4-395-502-01	LID (A)	
	4-395-503-31	LID (B)	
	4-395-504-01	COVER, BATTERY	
	4-395-508-01	CASE, LOWER	
	*4-395-562-01	SPACER (200S), PICTURE TUBE	
	*4-395-563-01	SPACER (200U), PICTURE TUBE	
	*4-395-564-01	SPACER (72U), PICTURE TUBE	
	*4-395-565-01	SPACER (72S), PICTURE TUBE	
	*4-396-287-01	SPACER	
	*4-396-288-01	BOX, ACCESSORY	
	*4-388-954-01	BAG, PROTECTION	
	*4-395-515-01	CUSHION (UPPER) (ASSY)	
	*4-396-077-01	JOINT	
	*4-396-286-01	SUPPORT	
	*4-396-915-01	HOLDER	

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VPH-1272QM/Q
RM-1271

SONY

SERVICE MANUAL

VPH-1272QM
AEP Model
Serial No. 5,001,066 and later
Chassis No. SCC-D13D-A

VPH-1272Q
US and Canadian Model
Serial No. 5,001,731 and later
Chassis No. SCC-D27D-A

SUPPLEMENT-3

File this supplement with the service manual.

INTRODUCTION

1. Changed DB board.

CN181 96P

+5.7V	1a	
+5.7V	1b	
+5.7V	1c	
-5.7V	2a	
-5.7V	2b	
-5.7V	2c	
GND	3a	
GND	3b	
GND	3c	
	4a	
	4b	
	4c	
	5a	
	5b	
	5c	
GND	6a	
GND	6b	
GND	6c	
V.DRIVE (R)	7a	
V.DRIVE (G)	7b	
V.DRIVE (B)	7c	
V.GND (R)	8a	R1501 100 :RN-CP
V.GND (G)	8b	R1502 100 :RN-CP
V.GND (B)	8c	R1503 100 :RN-CP
H.SUB (R)	9a	
H.SUB (G)	9b	
H.SUB (B)	9c	
V.SUB (R)	10a	
V.SUB (G)	10b	
V.SUB (B)	10c	
H.KEYS	11a	11A
H.PIN	11b	11B
H.SIZE	11c	11C
D5	12a	D5
D6	12b	D6
D7	12c	D7
D2	13a	D2
D3	13b	D3
D4	13c	D4
WR	14a	WR
D0	14b	D0
D1	14c	D1
A5	15a	A5
A6	15b	A6
A7	15c	A7
A2	16a	A2
A3	16b	A3
A4	16c	A4
	17a	
A0	17b	A0
A1	17c	A1
GND	18a	
GND	18b	
GND	18c	
TILT1	19a	19A
H.SAW	19b	19B
H.PARA	19c	19C
TILT2	20a	20A
HSXVS	20b	20B
H.SIN1	20c	20C
TILT3	21a	21A
HSXVP	21b	21B
H.SIN2	21c	21C
TILT4	22a	22A
HPXVS	22b	22B
	22c	
GND	23a	
GND	23b	
GND	23c	
V.SAW	24a	24A
V.PARA	24b	24B
V.SIN1	24c	24C
BLK (LEFT)	25a	25A
BLK (RIGHT)	25b	25B
V.SIN2	25c	25C
BLK (T)	26a	26A
BLK (B)	26b	26B
V.SIZE	26c	26C
V.SHIFT	27a	27A
H.SHIFT	27b	27B
	27c	27C
H.CENT (R)	28a	28A
H.CENT (G)	28b	28B
H.CENT (B)	28c	28C
DRV (G)	29a	29A
DRV (R)	29b	29B
BKG (R)	29c	29C
BKG (G)	30a	30A
SHARP	30b	30B
COLOR	30c	30C
DRV (B)	31a	31A
VOL	31b	31B
HUE	31c	31C
BKG (B)	32a	32A
BRT	32b	32B
PIX	32c	32C

TO DM BOARD DM-3

R H.SUB G H.SUB B H.SUB R V.SUB G V.SUB B V.SUB

TP1502 TP1503 TP1504 TP1505 TP1506 TP1507

D1503 1SS123 PROTECT D1504 1SS123 PROTECT D1505 1SS123 PROTECT

D1506 1SS123 PROTECT D1507 1SS123 PROTECT D1508 1SS123 PROTECT

L1501 45uH L1502 45uH

C1501 470 16V C1502 470 16V

D1501 V06C IC1501 LM2940CT-5.0 +5V-REG

D1502 V06C IC1502 LM2990T-5.0 -5V-REG

C1505 100 16V C1512 0.01 F:CHIP C1506 100 16V C1513 0.01 F:CHIP C1514 47 16V

R1541 0 :CHIP D1509 1S2837 R1500 22k :CHIP

IC1503 TL431CLP +2.5V-REG R1633 220 :CHIP C1507 10 16V

-5V 5V

TP1501 GND

R V.OUT G V.OUT B V.OUT

IC1538 (1/2) μPC814G2 SUB-OUT IC1538 (2/2) μPC814G2 SUB-OUT IC1539 (1/2) μPC814G2 SUB-OUT IC1539 (2/2) μPC814G2 SUB-OUT IC1540 (1/2) μPC814G2 SUB-OUT IC1540 (2/2) μPC814G2 SUB-OUT

R1900 2.7k :RN-CP R1901 1k :RN-CP R1902 1k :RN-CP R1903 2.7k :RN-CP R1904 1k :RN-CP R1905 1k :RN-CP R1906 2.7k :RN-CP R1907 1k :RN-CP R1908 1k :RN-CP R1909 2.7k :RN-CP R1910 1k :RN-CP R1911 1k :RN-CP R1912 2.7k :RN-CP R1913 1k :RN-CP R1914 1k :RN-CP R1915 2.7k :RN-CP R1916 1k :RN-CP R1917 1k :RN-CP R1918 15k :RN-CP

IC1541 (1/2) μPC4558G2 V-OUT IC1541 (2/2) μPC4558G2 V-OUT IC1542 μPC4558G2 V-OUT

TP1508 TP1509 TP1510 R1919 100 :RN-CP R1920 1k :RN-CP R1921 15k :RN-CP R1922 100 :RN-CP R1923 1k :RN-CP R1924 15k :RN-CP R1925 100 :RN-CP R1926 1k :RN-CP

IC1517 μPD74HC238GS DECODER

IC1518 μPD74HC2 DECODE

IC1519 μPD74HC2 DECODE

CLK 1 CLK 2 CLK 3 SD 1 SD 2 SD 3

IC1504 SN74HC374NS DATA-BUS-BUFF R1929 4.7k :CHIP R1928 4.7k :CHIP R1930 4.7k :CHIP R1931 4.7k :CHIP R1932 4.7k :CHIP R1933 1k :CHIP

IC1505 SN74HC244NS DATA-BUS-BUFF R1935 1k :CHIP R1936 1k :CHIP R1934 1k :CHIP R1937 100 :CHIP R1938 1k :CHIP R1939 1k :CHIP R1940 1k :CHIP R1540 4.7k :CHIP R1504 100 :CHIP

IC1506 SN74HC244NS DATA-BUS-BUFF R1513 1k :CHIP R1514 1k :CHIP R1515 1k :CHIP R1516 1k :CHIP R1517 1k :CHIP R1518 1k :CHIP R1519 1k :CHIP R1520 1k :CHIP R1505 4.7k :CHIP R1506 4.7k :CHIP R1507 4.7k :CHIP R1508 4.7k :CHIP R1509 4.7k :CHIP R1510 4.7k :CHIP R1511 4.7k :CHIP R1512 4.7k :CHIP

IC1507 SN74HC244NS DATA-BUS-BUFF R1529 1k :CHIP R1530 1k :CHIP R1531 1k :CHIP R1532 1k :CHIP R1533 A0 1k :CHIP R1534 A1 1k :CHIP R1535 A2 1k :CHIP R1536 A3 1k :CHIP R1521 4.7k :CHIP R1522 4.7k :CHIP R1523 4.7k :CHIP R1524 4.7k :CHIP R1525 4.7k :CHIP R1526 4.7k :CHIP R1527 4.7k :CHIP R1528 4.7k :CHIP

IC1508 SN74HC04NS CLK OSC R1537 2.2k :RN-CP C1508 47pF CH CHIP X1501 4.43MHz R1538 2.2k :RN-CP

IC1509 SN74HC74NS ADDRESS DECODE R1941 1k :CHIP

IC1510 SN74HC08NS ADDRESS DECODE

IC1511 SN74HC86NS ADDRESS DECODE

IC1512 SN74HC163NS ADDRESS DECODE

IC1513 SN74HC00N ADDRESS DEC

IC1514 SN74HC165N SHIFT RESIS

IC1515 SN74HC165N SHIFT RESIS

IC1516 SN74HC74NS ADDRESS DECO

D1902 RD6.8MB2 R1942 1k :CHIP R1943 1k :CHIP R1946 1k :CHIP

R1542 0 :CHIP 24A-1

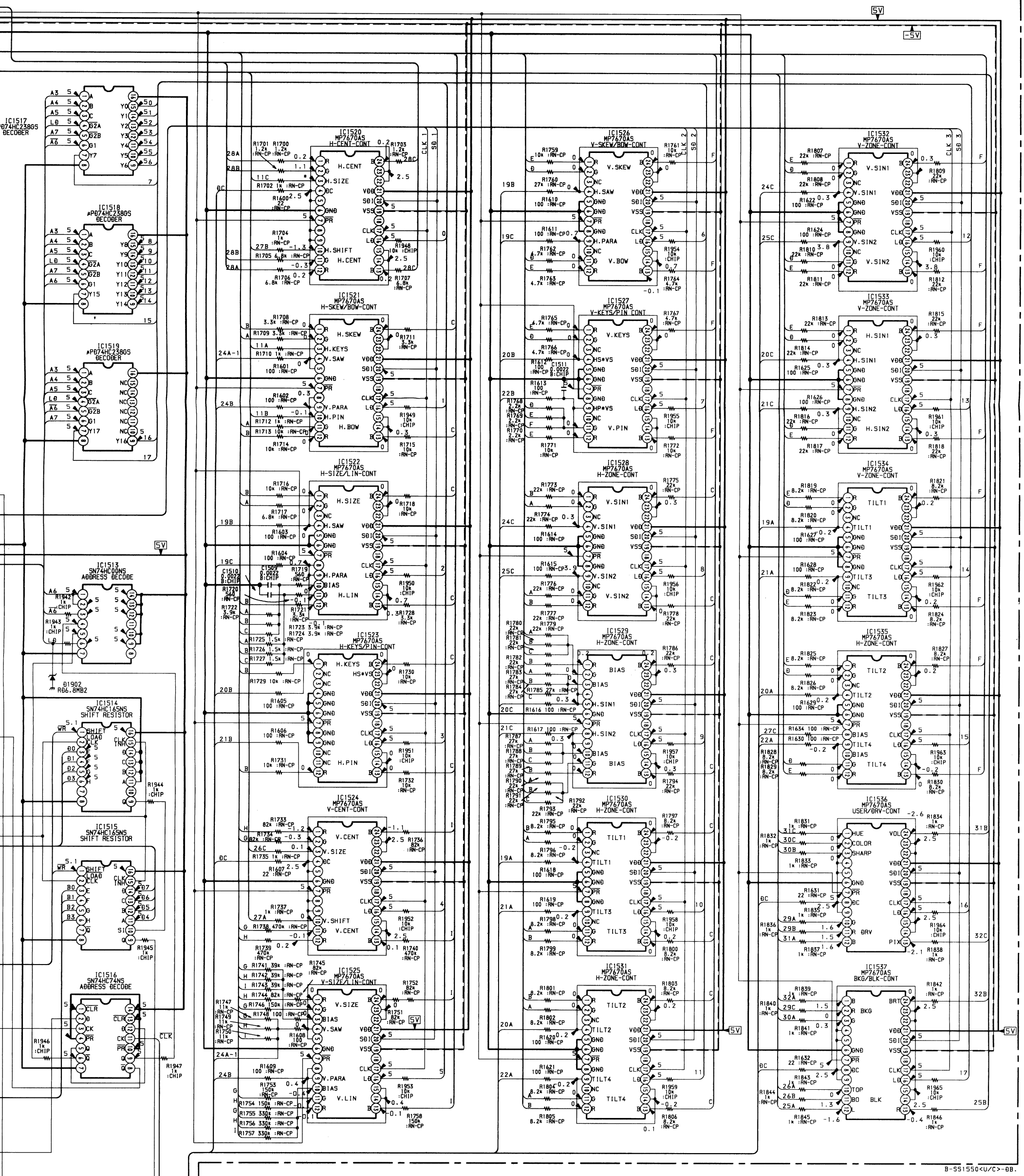
DB
(ELECTRONIC VR)

5V ライン GND -5V ライン

C1600 C1602 C1604 C1606 C1608 C1610 C1612 C1614 C1616 C1618 C1620 C1622 C1624 C1626 C1628 C1630 C1632 C1634 C1636 0.01 F:CHIP

C1601 C1603 C1605 C1607 C1609 C1611 C1613 C1615 C1617 C1619 C1621 C1623 C1625 C1627 C1629 C1631 C1633 C1635 0.01 F:CHIP

C1637 C1638 C1639 C1640 C1641 C1642 C1643 0.01 F:CHIP



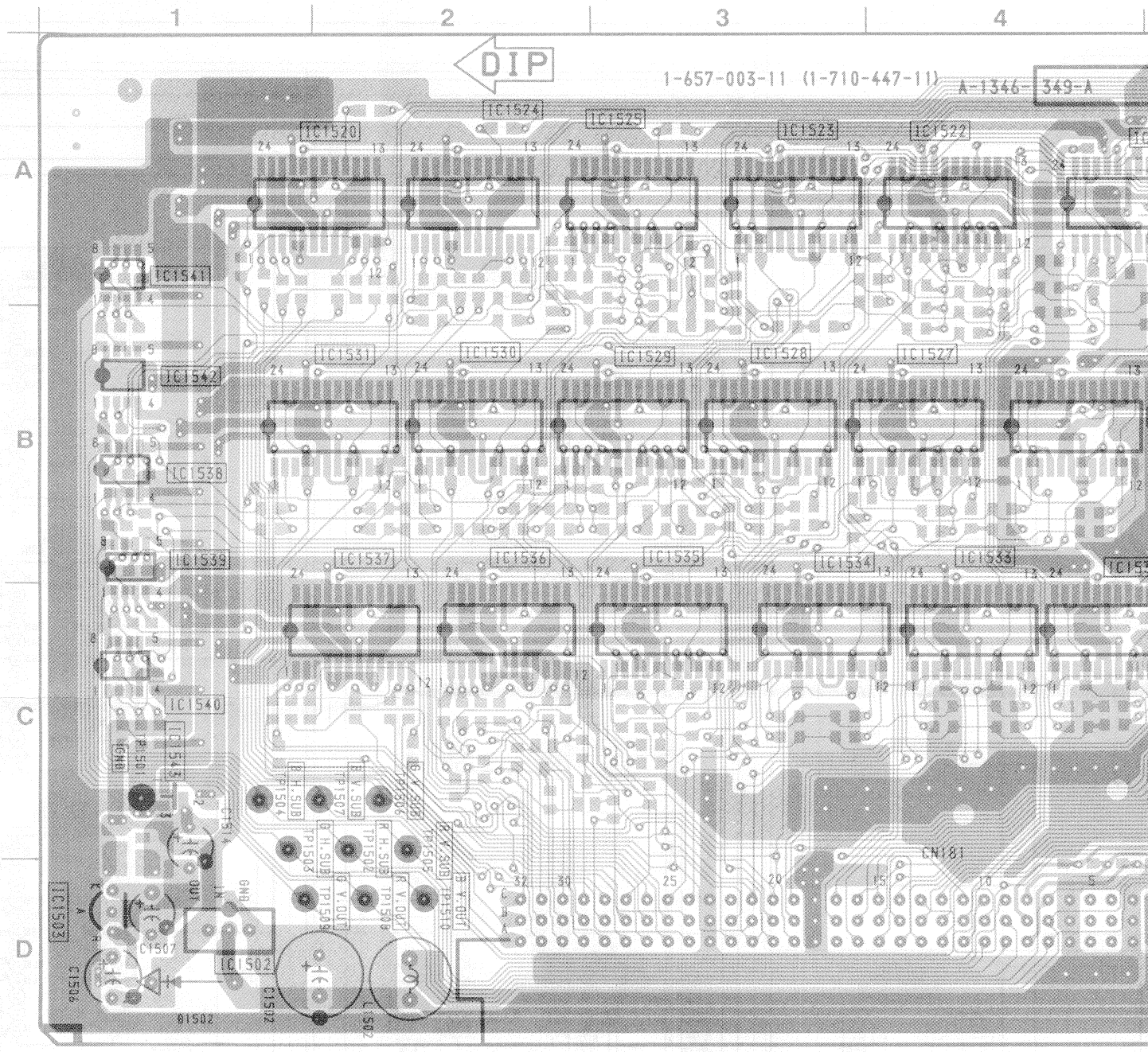
Schematic diagram

← DB board

B-SS1550<U/C>-0B.

DB [ELECTRONIC VR]

— DB BOARD — (Component side)

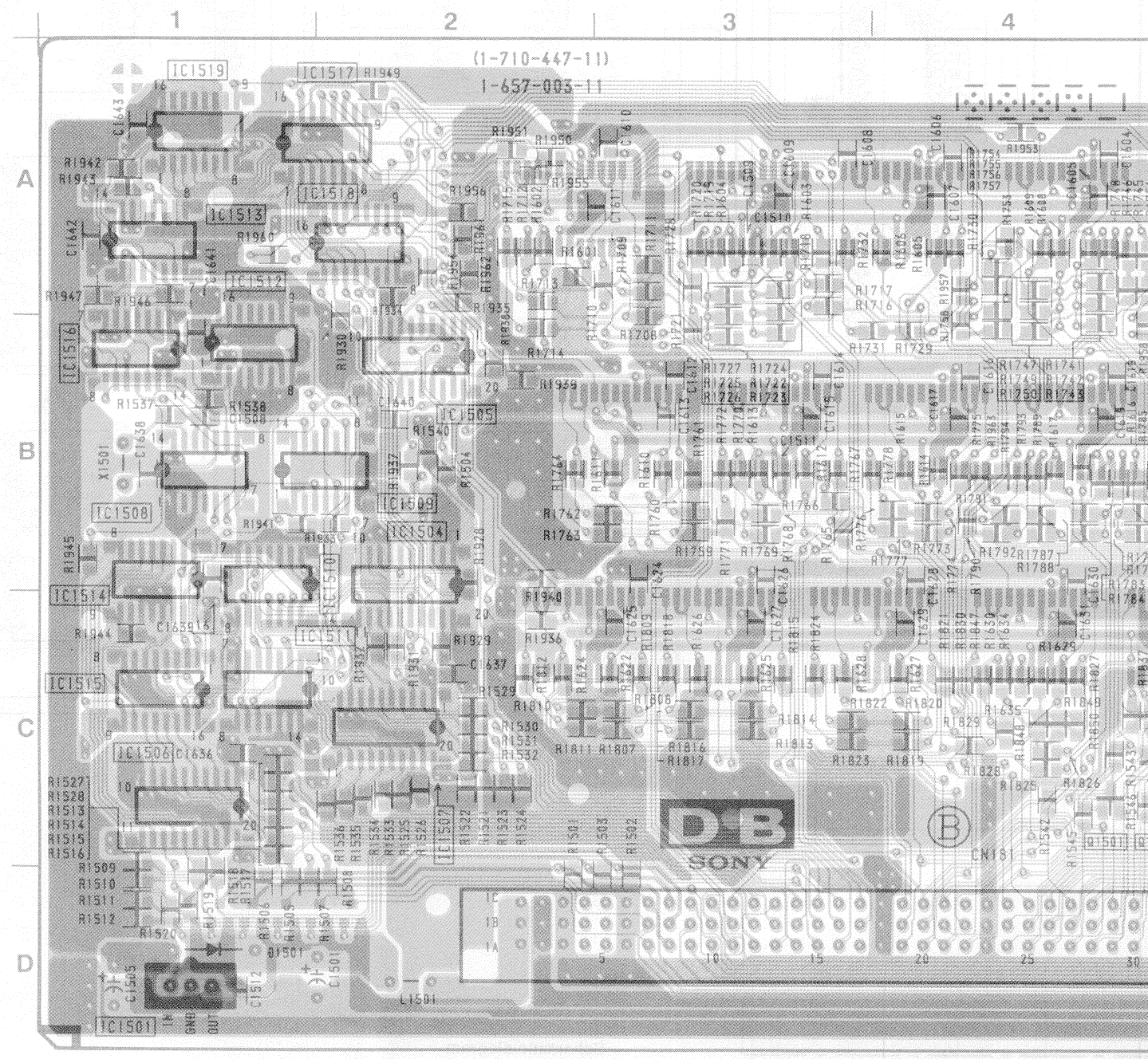


DB BOARD
(Component side)

IC	
IC1501	D–6
IC1502	D–1
IC1520	A–2
IC1521	A–5
IC1522	A–4
IC1523	A–3
IC1524	A–2
IC1525	A–3
IC1526	B–5
IC1527	B–4
IC1528	B–3
IC1529	B–3
IC1530	B–2
IC1531	B–2
IC1532	B–4
IC1533	B–4
IC1534	B–3
IC1535	B–3
IC1536	B–2
IC1537	B–2
IC1538	B–1
IC1539	B–1
IC1540	C–1
IC1541	A–1
IC1542	B–1

DIODE	
D1503	D–5
D1504	D–5
D1505	D–5
D1506	D–6
D1507	D–6
D1508	D–6
D1901	A–6
D1902	B–5

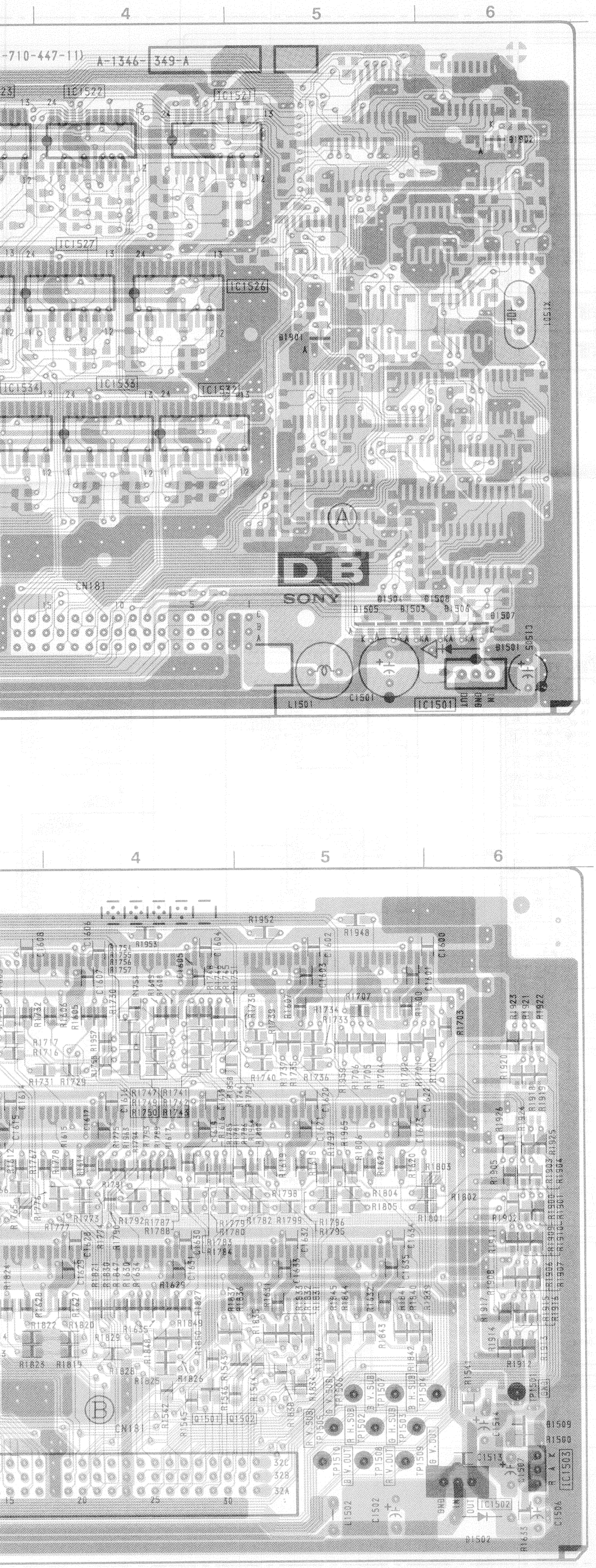
— DB BOARD — (Conductor side)



DB BOARD
(Conductor side)

IC	
IC1503	D–6
IC1504	B–2
IC1505	B–2
IC1506	C–1
IC1507	C–2
IC1508	B–1
IC1509	B–2
IC1510	B–2
IC1511	C–2
IC1512	A–1
IC1513	A–1
IC1514	C–1
IC1515	C–1
IC1516	B–1
IC1517	A–2
IC1518	A–2
IC1519	A–1

DIODE	
D1501	D–1
D1502	D–6
D1509	C–6


A-1346-349-A
IC1522
IC1527
IC1526
IC1534
IC1535
IC1532
B1902
B1901
CN181
SONY
B1504
B1508
B1505
B1503
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B1507
B1501
L1501
C1501
IC1501
C1513
R1952
R1948
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ELECTRICAL PARTS LIST

DB

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

RESISTORS

- All resistors are in ohms
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1341-950-A	MOUNTED PCB, DB			
		**********			
	* 1-657-003-11	PC BOARD, DB			
		<CAPACITOR>			
C1501	1-126-941-11	ELECT	470µF	20% 16V	
C1502	1-126-941-11	ELECT	470µF	20% 16V	
C1505	1-104-665-11	ELECT	100µF	20% 16V	
C1506	1-104-665-11	ELECT	100µF	20% 16V	
C1507	1-124-907-11	ELECT	10µF	20% 50V	
C1508	1-163-243-11	CERAMIC CHIP	47pF	5% 50V	
C1509	1-164-161-11	CERAMIC CHIP	0.0022µF	10% 50V	
C1510	1-164-161-11	CERAMIC CHIP	0.0022µF	10% 50V	
C1511	1-164-161-11	CERAMIC CHIP	0.0022µF	10% 50V	
C1512	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1513	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1514	1-126-967-11	ELECT	47µF	20% 16V	
C1600	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1601	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1602	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1603	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1604	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1605	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1606	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1607	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1608	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1609	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1610	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1611	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1612	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1613	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1614	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1615	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1616	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1617	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1618	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1619	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1620	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1621	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1622	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1623	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1624	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1625	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1626	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1627	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1628	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1629	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1630	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1631	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1632	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1633	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1634	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1635	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1636	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1637	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1638	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1639	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1640	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1641	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1642	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1643	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
		<CONNECTOR>			
CN181	* 1-766-305-11	PIN, PC CONNECTOR 96P			
		<DIODE>			
D1501	8-719-900-95	DIODE V09G			
D1502	8-719-900-95	DIODE V09G			
D1503	8-719-800-76	DIODE 1SS226			
D1504	8-719-800-76	DIODE 1SS226			
D1505	8-719-800-76	DIODE 1SS226			
D1506	8-719-800-76	DIODE 1SS226			
D1507	8-719-800-76	DIODE 1SS226			
D1508	8-719-800-76	DIODE 1SS226			
D1509	8-719-801-78	DIODE 1SS184			
D1901	8-719-106-17	DIODE RD6.8M-B2			
D1902	8-719-106-17	DIODE RD6.8M-B2			
		<IC>			
IC1501	8-759-144-82	IC µPC2405HF			

DB

REF.NO.	PART NO.	DESCRIPTION			REMARK
IC1502	8-759-247-67	IC LM2990T-5.0			
IC1503	8-759-908-15	IC TL431CLP			
IC1504	8-759-926-67	IC SN74HC374ANS			
IC1505	8-759-926-48	IC SN74HC244ANS			
IC1506	8-759-926-48	IC SN74HC244ANS.			
IC1507	8-759-926-48	IC SN74HC244ANS			
IC1508	8-759-925-74	IC SN74HC04ANS			
IC1509	8-759-925-90	IC SN74HC74ANS			
IC1510	8-759-925-76	IC SN74HC08ANS			
IC1511	8-759-239-23	IC TC74HC86AF			
IC1512	8-759-232-74	IC TC74HC163AF			
IC1513	8-759-927-46	IC SN74HC00ANS			
IC1514	8-759-236-51	IC TC74HC165AF(EL)			
IC1515	8-759-236-51	IC TC74HC165AF(EL)			
IC1516	8-759-925-90	IC SN74HC74ANS			
IC1517	8-759-267-60	IC μPD74HC238GS-E2			
IC1518	8-759-267-60	IC μPD74HC238GS-E2			
IC1519	8-759-267-60	IC μPD74HC238GS-E2			
IC1520	8-759-326-65	IC MP7670AS-TE2			
IC1521	8-759-326-65	IC MP7670AS-TE2			
IC1522	8-759-326-65	IC MP7670AS-TE2			
IC1523	8-759-326-65	IC MP7670AS-TE2			
IC1524	8-759-326-65	IC MP7670AS-TE2			
IC1525	8-759-326-65	IC MP7670AS-TE2			
IC1526	8-759-326-65	IC MP7670AS-TE2			
IC1527	8-759-326-65	IC MP7670AS-TE2			
IC1528	8-759-326-65	IC MP7670AS-TE2			
IC1529	8-759-326-65	IC MP7670AS-TE2			
IC1530	8-759-326-65	IC MP7670AS-TE2			
IC1531	8-759-326-65	IC MP7670AS-TE2			
IC1532	8-759-326-65	IC MP7670AS-TE2			
IC1533	8-759-326-65	IC MP7670AS-TE2			
IC1534	8-759-326-65	IC MP7670AS-TE2			
IC1535	8-759-326-65	IC MP7670AS-TE2			
IC1536	8-759-326-65	IC MP7670AS-TE2			
IC1537	8-759-326-65	IC MP7670AS-TE2			
IC1538	8-759-114-06	IC μPC814G2-1			
IC1539	8-759-114-06	IC μPC814G2-1			
IC1540	8-759-114-06	IC μPC814G2-1			
IC1541	8-759-100-96	IC μPC4558G2			
IC1542	8-759-100-96	IC μPC4558G2			
		<COIL>			
L1501	1-459-155-00	COIL (WITH CORE) 45μH			
L1502	1-459-155-00	COIL (WITH CORE) 45μH			
		<RESISTOR>			
R1500	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R1501	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1502	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1503	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1504	1-216-025-91	METAL GLAZE	100	5%	1/10W
R1505	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1506	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1507	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1508	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1510	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1511	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1513	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1514	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1515	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1516	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1517	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1518	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1519	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1520	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1521	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1522	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1523	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1524	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1525	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1526	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1527	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1528	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1529	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1530	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1531	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1532	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1533	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1534	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1535	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1536	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1537	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1538	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1540	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1541	1-216-295-91	CONDUCTOR, CHIP		(2012)	
R1542	1-216-295-91	CONDUCTOR, CHIP		(2012)	
R1600	1-216-611-11	METAL CHIP	22	0.5%	1/10W
R1601	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1602	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1603	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1604	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1605	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1606	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1607	1-216-611-11	METAL CHIP	22	0.5%	1/10W
R1608	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1609	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1610	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1611	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1612	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1613	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1614	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1615	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1616	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1617	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1618	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1619	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R1620	1-216-627-11	METAL CHIP	100	0.5%	1/10W

DB

REF.NO.	PART NO.	DESCRIPTION		REMARK
R1621	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1622	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1624	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1625	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1626	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1627	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1628	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1629	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1630	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1631	1-216-611-11	METAL CHIP	22	0.5% 1/10W
R1632	1-216-611-11	METAL CHIP	22	0.5% 1/10W
R1633	1-216-033-00	METAL GLAZE	220	5% 1/10W
R1634	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1700	1-208-784-11	METAL CHIP	1.2K	0.5% 1/10W
R1701	1-208-784-11	METAL CHIP	1.2K	0.5% 1/10W
R1702	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1703	1-208-784-11	METAL CHIP	1.2K	0.5% 1/10W
R1704	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1705	1-216-671-11	METAL CHIP	6.8K	0.5% 1/10W
R1706	1-216-671-11	METAL CHIP	6.8K	0.5% 1/10W
R1707	1-216-671-11	METAL CHIP	6.8K	0.5% 1/10W
R1708	1-216-663-11	METAL CHIP	3.3K	0.5% 1/10W
R1709	1-216-663-11	METAL CHIP	3.3K	0.5% 1/10W
R1710	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1711	1-216-663-11	METAL CHIP	3.3K	0.5% 1/10W
R1712	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1713	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1714	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1715	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1716	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1717	1-216-671-11	METAL CHIP	6.8K	0.5% 1/10W
R1718	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1719	1-216-645-11	METAL CHIP	560	0.5% 1/10W
R1720	1-216-645-11	METAL CHIP	560	0.5% 1/10W
R1721	1-216-663-11	METAL CHIP	3.3K	0.5% 1/10W
R1722	1-216-665-11	METAL CHIP	3.9K	0.5% 1/10W
R1723	1-216-665-11	METAL CHIP	3.9K	0.5% 1/10W
R1724	1-216-665-11	METAL CHIP	3.9K	0.5% 1/10W
R1725	1-216-655-11	METAL CHIP	1.5K	0.5% 1/10W
R1726	1-216-655-11	METAL CHIP	1.5K	0.5% 1/10W
R1727	1-216-655-11	METAL CHIP	1.5K	0.5% 1/10W
R1728	1-216-663-11	METAL CHIP	3.3K	0.5% 1/10W
R1729	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1730	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1731	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1732	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1733	1-216-697-91	METAL CHIP	82K	0.5% 1/10W
R1734	1-216-697-91	METAL CHIP	82K	0.5% 1/10W
R1735	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1736	1-216-697-91	METAL CHIP	82K	0.5% 1/10W
R1737	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1738	1-218-768-11	METAL CHIP	470K	0.5% 1/10W
R1739	1-218-768-11	METAL CHIP	470K	0.5% 1/10W
R1740	1-218-768-11	METAL CHIP	470K	0.5% 1/10W
R1741	1-216-689-11	METAL CHIP	39K	0.5% 1/10W
R1742	1-216-689-11	METAL CHIP	39K	0.5% 1/10W
R1743	1-216-689-11	METAL CHIP	39K	0.5% 1/10W
R1744	1-216-697-91	METAL CHIP	82K	0.5% 1/10W
R1745	1-216-697-91	METAL CHIP	82K	0.5% 1/10W
R1746	1-218-756-11	METAL CHIP	150K	0.5% 1/10W
R1747	1-216-676-11	METAL CHIP	11K	0.5% 1/10W
R1748	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1749	1-216-676-11	METAL CHIP	11K	0.5% 1/10W
R1750	1-216-676-11	METAL CHIP	11K	0.5% 1/10W
R1751	1-216-697-91	METAL CHIP	82K	0.5% 1/10W
R1752	1-216-697-91	METAL CHIP	82K	0.5% 1/10W
R1753	1-218-756-11	METAL CHIP	150K	0.5% 1/10W
R1754	1-218-756-11	METAL CHIP	150K	0.5% 1/10W
R1755	1-218-764-11	METAL CHIP	330K	0.5% 1/10W
R1756	1-218-764-11	METAL CHIP	330K	0.5% 1/10W
R1757	1-218-764-11	METAL CHIP	330K	0.5% 1/10W
R1758	1-218-756-11	METAL CHIP	150K	0.5% 1/10W
R1759	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1760	1-216-685-11	METAL CHIP	27K	0.5% 1/10W
R1761	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1762	1-216-667-11	METAL CHIP	4.7K	0.5% 1/10W
R1763	1-216-667-11	METAL CHIP	4.7K	0.5% 1/10W
R1764	1-216-667-11	METAL CHIP	4.7K	0.5% 1/10W
R1765	1-216-667-11	METAL CHIP	4.7K	0.5% 1/10W
R1766	1-216-667-11	METAL CHIP	4.7K	0.5% 1/10W
R1767	1-216-667-11	METAL CHIP	4.7K	0.5% 1/10W
R1768	1-216-659-11	METAL CHIP	2.2K	0.5% 1/10W
R1769	1-216-659-11	METAL CHIP	2.2K	0.5% 1/10W
R1770	1-216-659-11	METAL CHIP	2.2K	0.5% 1/10W
R1771	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1772	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R1773	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1774	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1775	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1776	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1777	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1778	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1779	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1780	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1781	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1782	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1783	1-216-685-11	METAL CHIP	27K	0.5% 1/10W
R1784	1-216-685-11	METAL CHIP	27K	0.5% 1/10W
R1785	1-216-685-11	METAL CHIP	27K	0.5% 1/10W
R1786	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1787	1-216-685-11	METAL CHIP	27K	0.5% 1/10W
R1788	1-216-685-11	METAL CHIP	27K	0.5% 1/10W
R1789	1-216-685-11	METAL CHIP	27K	0.5% 1/10W
R1790	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1791	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1792	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1793	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1794	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1795	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1796	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1797	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1798	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W

DB

REF.NO.	PART NO.	DESCRIPTION		REMARK
R1799	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1800	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1801	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1802	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1803	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1804	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1805	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1806	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1807	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1808	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1809	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1810	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1811	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1812	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1813	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1814	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1815	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1816	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1817	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1818	1-208-814-11	METAL CHIP	22K	0.5% 1/10W
R1819	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1820	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1821	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1822	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1823	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1824	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1825	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1826	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1827	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1828	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1829	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1830	1-216-673-11	METAL CHIP	8.2K	0.5% 1/10W
R1831	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1832	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1833	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1834	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1835	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1836	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1837	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1838	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1839	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1840	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1841	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1842	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1843	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1844	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1845	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1846	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1900	1-216-661-11	METAL CHIP	2.7K	0.5% 1/10W
R1901	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1902	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1903	1-216-661-11	METAL CHIP	2.7K	0.5% 1/10W
R1904	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1905	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1906	1-216-661-11	METAL CHIP	2.7K	0.5% 1/10W
R1907	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1908	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1909	1-216-661-11	METAL CHIP	2.7K	0.5% 1/10W
R1910	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1911	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1912	1-216-661-11	METAL CHIP	2.7K	0.5% 1/10W
R1913	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1914	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1915	1-216-661-11	METAL CHIP	2.7K	0.5% 1/10W
R1916	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1917	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1918	1-208-810-11	METAL CHIP	15K	0.5% 1/10W
R1919	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1920	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1921	1-208-810-11	METAL CHIP	15K	0.5% 1/10W
R1922	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1923	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1924	1-208-810-11	METAL CHIP	15K	0.5% 1/10W
R1925	1-216-627-11	METAL CHIP	100	0.5% 1/10W
R1926	1-216-651-11	METAL CHIP	1K	0.5% 1/10W
R1928	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W
R1929	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W
R1930	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W
R1931	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W
R1932	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W
R1933	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1934	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1935	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1936	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1937	1-216-025-91	METAL GLAZE	100	5% 1/10W
R1938	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1939	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1940	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1941	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1942	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1943	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1944	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1945	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1946	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1947	1-216-049-91	METAL GLAZE	1K	5% 1/10W
R1948	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1949	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1950	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1951	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1952	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1953	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1954	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1955	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1956	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1957	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1958	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1959	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1960	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1961	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1962	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1963	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1964	1-216-073-00	METAL GLAZE	10K	5% 1/10W

DB

REF.NO.	PART NO.	DESCRIPTION		REMARK
R1965	1-216-073-00	METAL GLAZE 10K	5%	1/10W
		<CRYSTAL>		
X1501	1-567-504-11	OSCILLATOR, CRYSTAL		

9-978-380-83

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B&I Systems Company

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VPH-1272QM/Q

RM-1271

SONY

SERVICE MANUAL

VPH-1272QM
AEP Model
Serial No. 5,000,741 and later
Chassis No. SCC-D13D-A

VPH-1272Q
US and Canadian Model
Serial No. 5,001,251 and later
Chassis No. SCC-D27D-A

SUPPLEMENT-2

File this supplement with the service manual.

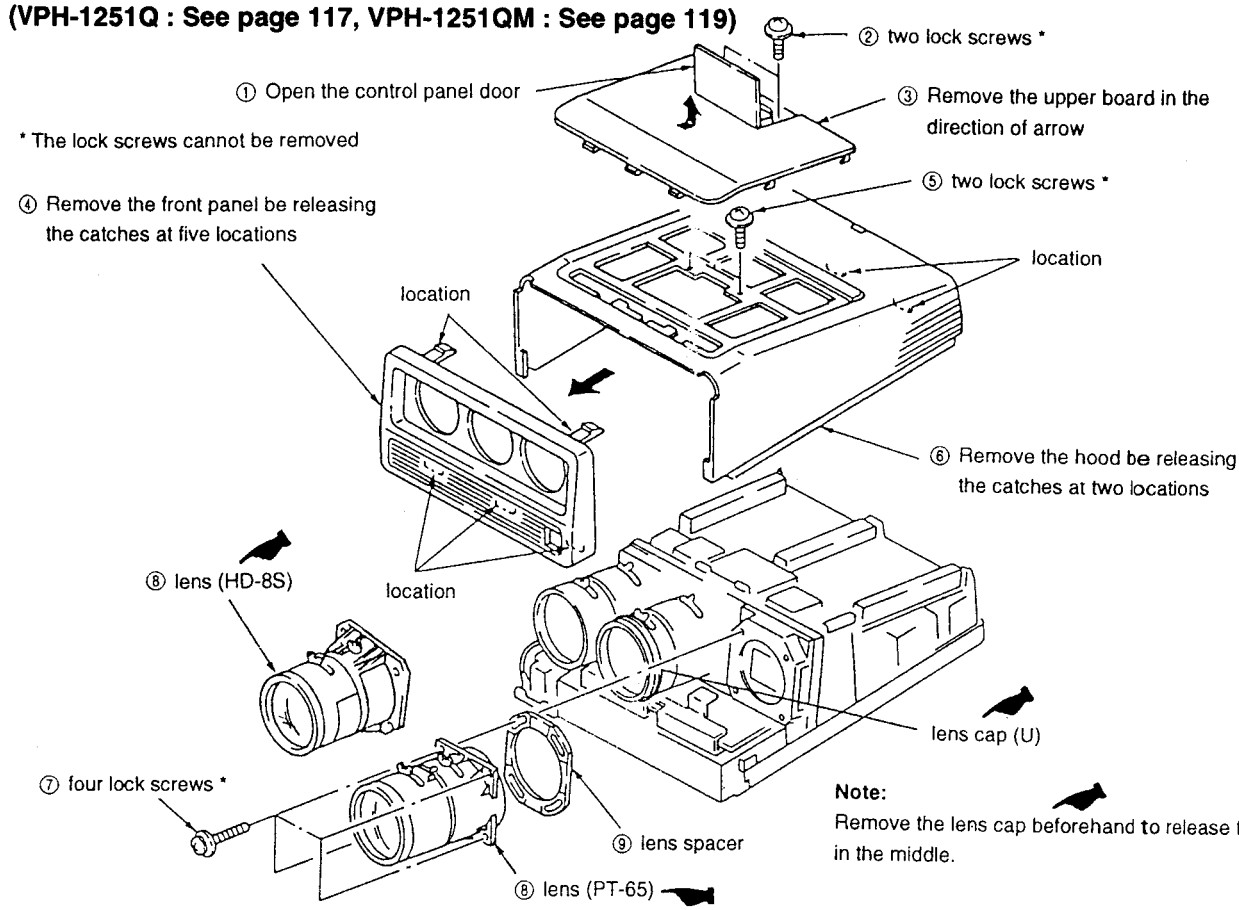
INTRODUCTION

1. Changed lens.
2. Repair part from of PA, CA (RG) and CA (B) boards has been changed from a mounted board to a board only.
3. This service manual have not contain the DISASSEMBLY and SET-UP ADJUSTMENT section.
   VPH-1272Q is almost as VPH-1251Q, and VPH-1272QM is almost as VPH-1251QM too.
   Please refer to VPH-1251Q service manual (9-978-194-01) and VPH-1251QM service manual (9-978-196-01).
   This service manual contain only the points which differ from VPH-1251Q and VPH-1251QM.

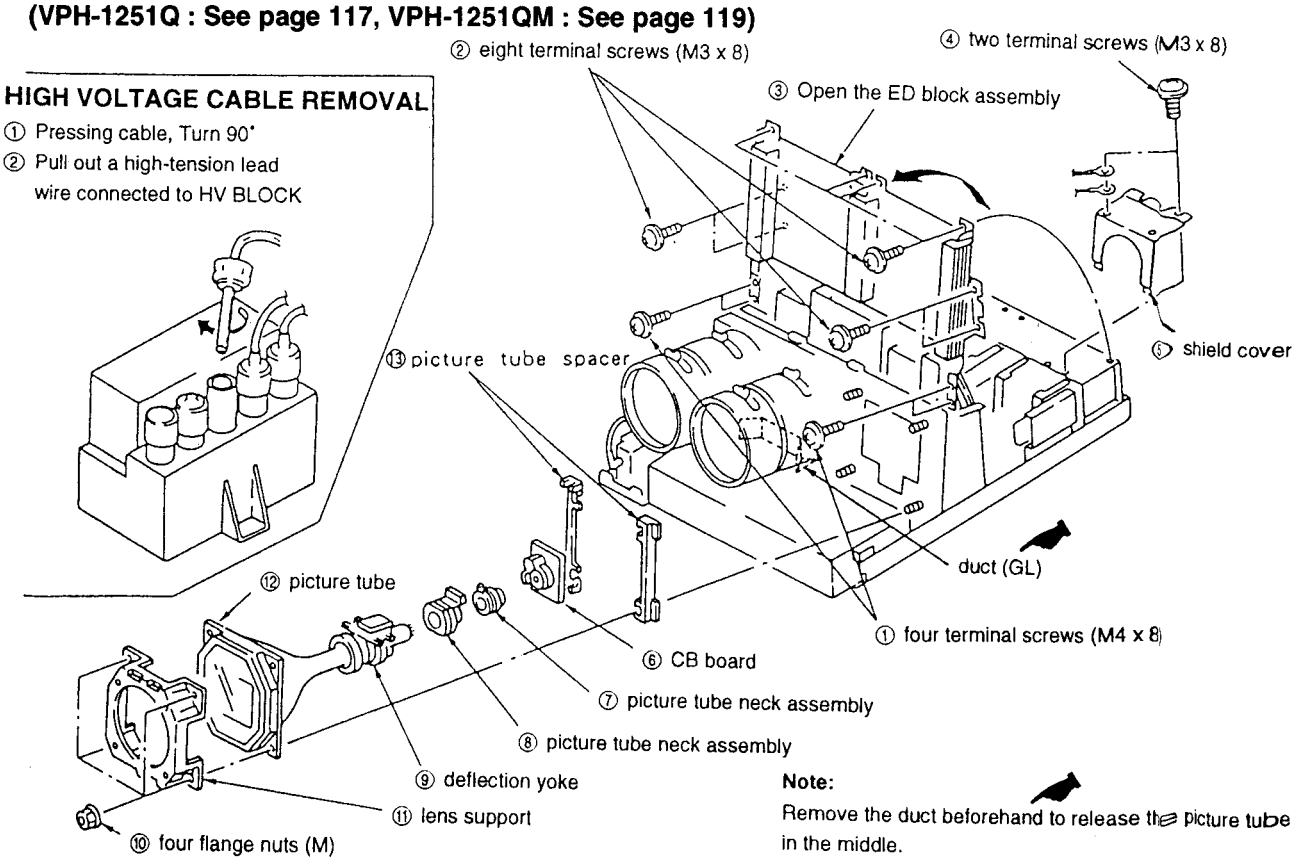
MICROFILM

2. DISASSEMBLY

2-1. CABINET AND LENS REMOVAL
(VPH-1251Q : See page 117, VPH-1251QM : See page 119)



2-2. PICTURE TUBE REMOVAL
(VPH-1251Q : See page 117, VPH-1251QM : See page 119)



4. SET-UP ADJUSTMENT

4-14. WHITE BALANCE ADJUSTMENT (VPH-1251Q : See page 205, VPH-1251QM : See page 205)

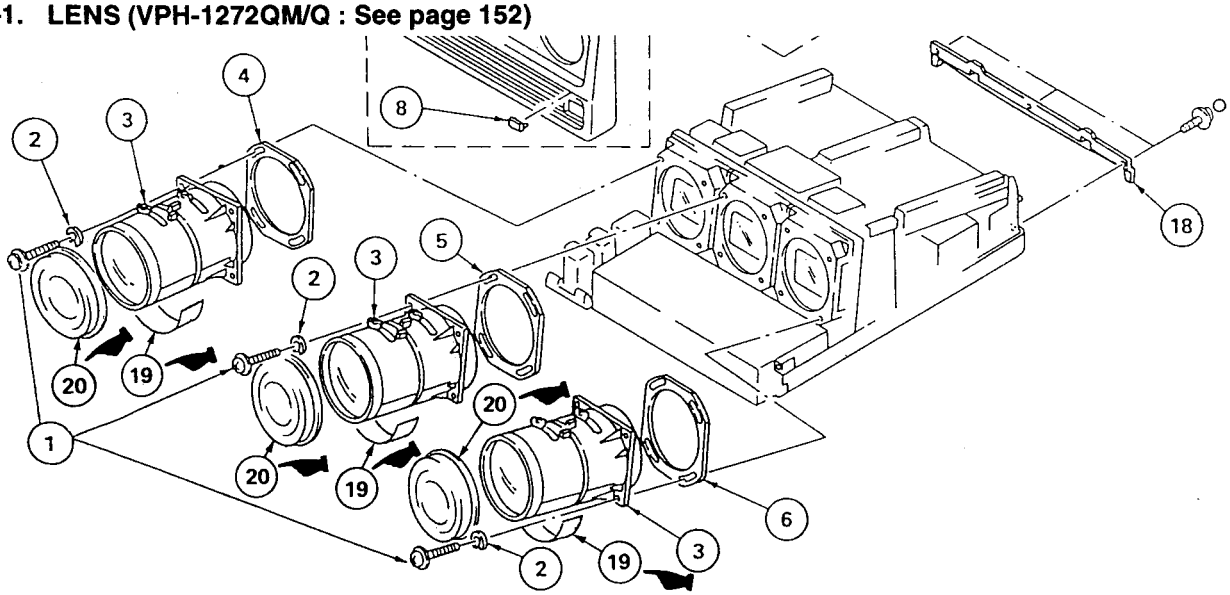
7. When performing adjustments using the digital voltmeter, adjust as follows.
   1) Adjust the BLUE G_2 VR so that the voltage between Pins ① and ② of connector CFB-5 becomes 1.5 ± 0.2 VDC.
   2) Adjust the GREEN G_2 VR so that the voltage between Pins ① and ③ of connector CFB-5 becomes 1.5 ± 0.2 VDC.
   3) Adjust the RED G_2 VR so that the voltage between Pins ① and ④ of connector CFB-5 becomes 1.5 ± 0.2 VDC.

8. When performing adjustments without using the digital voltmeter, adjust as follows.
   1) Short circuit 1. and 2. of the CFB-3 connector (2P) of the CFB board.

   Note : The 2P connector to be short-circuited is inserted in connector L302 of the L board. After the adjustment, insert it back into the L board.

3. EXPLODED VIEWS

3-1. LENS (VPH-1272QM/Q : See page 152)



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-034-126-01	SCREW (C)	
2	4-034-117-01	WASHER, SUPPORT	
3	4-034-141-03	LENS (PT-65) (VPH-1272Q) (S/N:~5,001,250)	
3	4-034-141-03	LENS (PT-65) (VPH-1272QM) (S/N:~5,000,740)	
3	4-047-750-01	LENS (HD-8S) (VPH-1272Q) (S/N:5,001,251~)	
3	4-047-750-01	LENS (HD-8S) (VPH1272QM) (S/N: 5,000,741~)	
4	4-034-143-01	SPACER (B), LENS	
5	4-034-144-01	SPACER (G), LENS	
6	4-034-142-01	SPACER (R), LENS	
7	X-4395-512-4	PANEL ASSY, FRONT	8
8	4-395-534-02	FILTER	
9	X-4031-622-1	HOOD ASSY (VPH-1272Q ONLY)	10~12
	X-4031-623-1	HOOD ASSY (VPH-1272QM ONLY)	
10	4-033-711-01	SCREW (+PWH M4x20), PREVENTION	
11	4-033-712-01	WASHER	
12	4-395-536-01	PLATE, INDICATE	
13	X-4031-601-1	PLATE, TOP	14~17
14	4-395-596-01	DOOR, CONTROL, PANEL	
15	4-392-036-01	CATCHER, PUSH	
16	4-033-713-01	SCREW (+PWH M4x10), PRIVENTION	
17	4-033-712-01	WASHER	
18	4-395-595-01	HOLDER, CONNECTOR PANEL	
19	4-047-883-01	SHEET, ABSORPTION (VPH-1272Q) (S/N:5,001,251~)	
19	4-047-883-01	SHEET, ABSORPTION (VPH-1272QM) (S/N:5,000,741~)	
20	4-048-013-01	COVER, LENS (VPH-1272Q) (S/N:5,001, 251~)	
20	4-048-013-01	COVER, LENS (VPH-1272QM) (S/N:5,000,741~)	

4. ELECTRICAL PART LIST

VPH-1272QM/Q : See page 167

REF.NO	PART NO.	DESCRIPTION	REMARK
	*A-1195-081-A/B	PA BOARD, COMPLETE	
		(VPH-1272QM S/N:5,000,001~5,001,065)	
		(VPH-1272Q S/N:5,000,001~5,001,580)	
	*A-1195-081-B	PA BOARD, COMPLETE	
		(VPH-1272QM S/N:5,001,066~)	
		(VPH-1272Q S/N:5,001,581~)	
		<CAPACITOR>	
C43	1-129-718-00	FILM 0.022MF 10% 630V	
		(VPH-1272QM S/N:5,000,001~5,001,065)	
		(VPH-1272Q S/N:5,000,001~5,001,580)	
	1-136-561-11	FILM 0.0068MF 10% 630V	
		(VPH-1272QM S/N:5,001,066~)	
		(VPH-1272Q S/N:5,001,581~)	
		<COIL>	
L7	1-412-521-31	INDUCTOR 4.7UH	
		(VPH-1272QM S/N:5,000,001~5,001,065)	
		(VPH-1272Q S/N:5,000,001~5,001,580)	
	1-412-525-31	INDUCTOR 10UH	
		(VPH-1272QM S/N:5,001,066~)	
		(VPH-1272Q S/N:5,001,581~)	
L8	1-412-521-31	INDUCTOR 4.7UH	
		(VPH-1272QM S/N:5,000,001~5,001,065)	
		(VPH-1272Q S/N:5,000,001~5,001,580)	
	1-412-525-31	INDUCTOR 10UH	
		(VPH-1272QM S/N:5,001,066~)	
		(VPH-1272Q S/N:5,001,581~)	

VPH-1272QM/Q : See page 172

REF.NO	PART NO.	DESCRIPTION	REMARK
	*A-1335-026-A/B	CA (RG) BOARD, COMPLETE	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	*A-1335-026-B	CA (RG) BOARD, COMPLETE	
		(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
		<DIODE>	
D102	8-719-901-83	DIODE 1SS83	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	——	(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
D202	8-719-901-83	DIODE 1SS83	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	——	(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
		<RESISTOR>	
R150	1-247-807-31	CARBON 100 5% 1/4W	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	1-249-393-11	CARBON 10 5% 1/4W	
		(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
R170	1-247-735-11	SOLID 47 10% 1/2W	
		(VPH-1252QM S/N:5,000,001~5,000,740)	
		(VPH-1252Q S/N:5,000,001~5,001,250)	
	——	(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
R248	1-247-807-31	CARBON 100 5% 1/4W	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	1-249-393-11	CARBON 10 5% 1/4W	
		(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
R270	1-247-735-11	SOLID 47 10% 1/2W	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	——	(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	

VPH-1272QM/Q : See page 175

REF.NO	PART NO.	DESCRIPTION	REMARK
	*A-1335-033-A/B	CA (B) BOARD, COMPLETE	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	*A-1335-033-B	CA (B) BOARD, COMPLETE	
		(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
		<DIODE>	
D302	8-719-901-83	DIODE 1SS83	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	——	(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
		<RESISTOR>	
R350	1-247-807-31	CARBON 100 5% 1/4W	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	1-249-393-11	CARBON 10 5% 1/4W	
		(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	
R370	1-247-735-11	SOLID 47 10% 1/2W	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	——	(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	

VPH-1272QM/Q : See page 200

REF.NO	PART NO.	DESCRIPTION	REMARK
	*A-1394-325-A	Y BOARD, COMPLETE	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	*A-1394-677-A	Y BOARD, COMPLETE	
		(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	

A-1394-677-A Y BOARD, COMPLETE IS USED FOR VPH-1272QM S/N:5,000,001~5,000,740 AND VPH-1272Q S/N:5,000,001~5,001,250.

		<IC>	
IC2	8-759-334-32	IC MBM27C512-20-PJY037	
		(VPH-1272QM S/N:5,000,001~5,000,740)	
		(VPH-1272Q S/N:5,000,001~5,001,250)	
	8-759-346-00	IC MBM27C512-20-PJY038	
		(VPH-1272QM S/N:5,000,741~)	
		(VPH-1272Q S/N:5,001,251~)	

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VPH-1272QM/Q

RM-1271

SONY

SERVICE MANUAL

VPH-1272QM
Chassis No. SCC-D13D-A

VPH-1272Q
Chassis No. SCC-D27D-A

SUPPLEMENT-1

File this spplement with the service manual.

INTRODUCTION

Repair part form of M and PF boards has been changed from a mounted board to a board only.

TABLE OF CONTENTS

Section	*Title*	*Page*
1. DIAGRAM		
1-1.	Schematic Diagrams and Printed Wiring Board	2
•	PF Board	3
•	M Board	6
2. ELECTRICAL PARTS LIST		
•	M Board	9
•	PF Board	12
•	Miscellaneous	13

MICROFILM

SECTION 1
DIAGRAMS

1-1. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic and tantalums.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm
Rating electrical power ¼ W

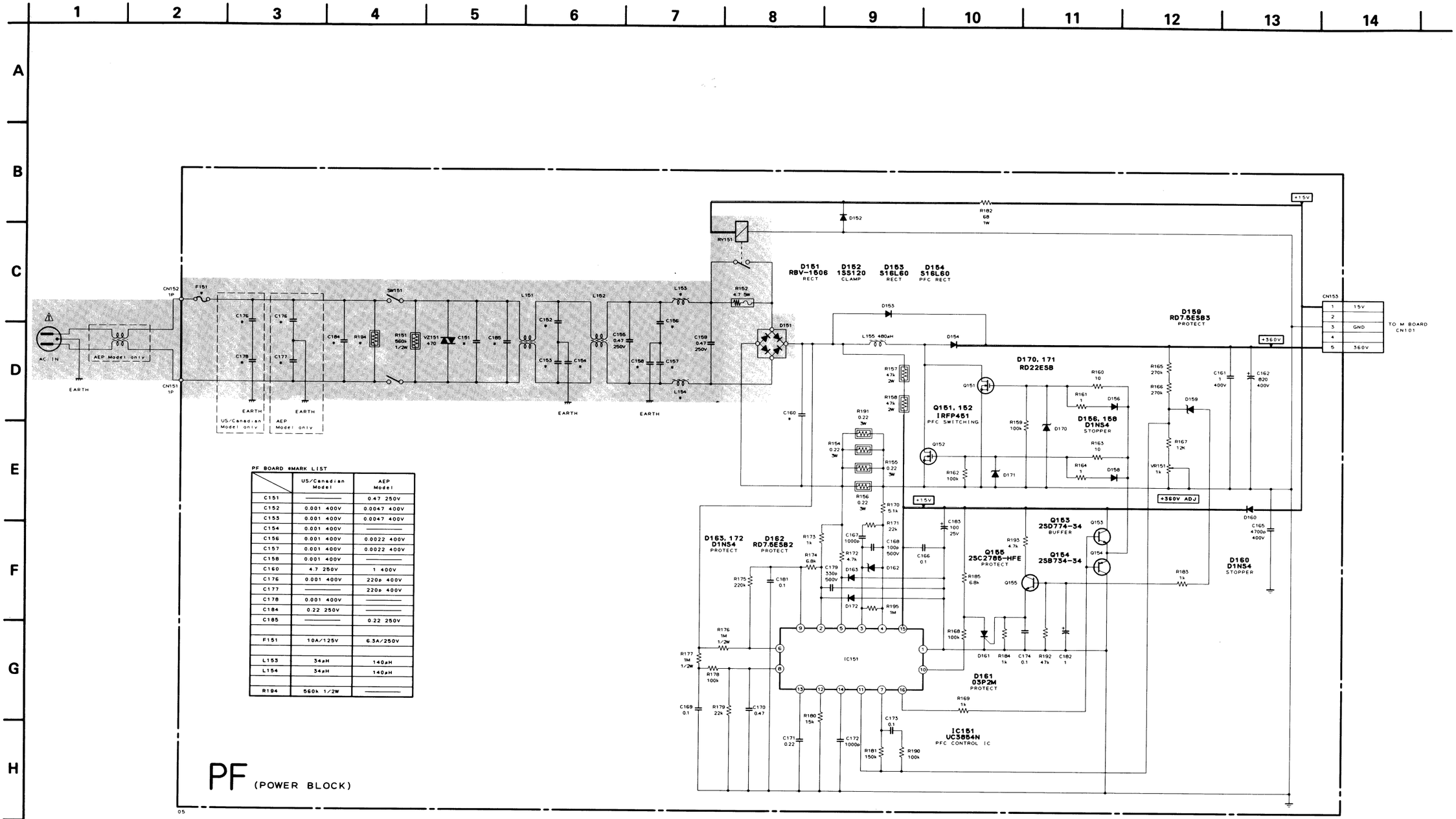
- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- ▬▬ : B+ bus.
- ▬ ▬ ▬ : B− bus.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

VPH-1272QM/Q
RM-1271

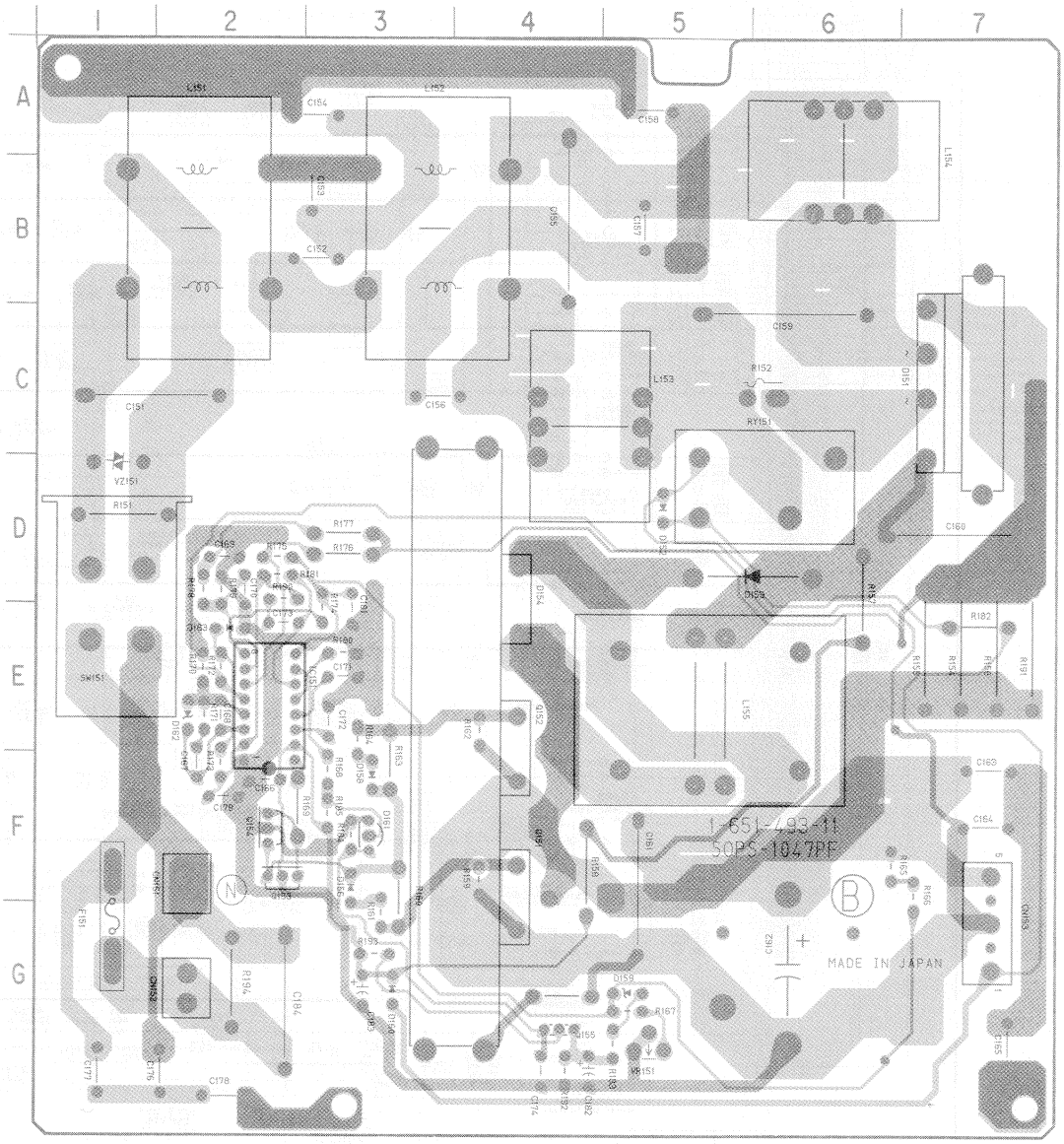
• PF Board



PF (POWER BLOCK)

05

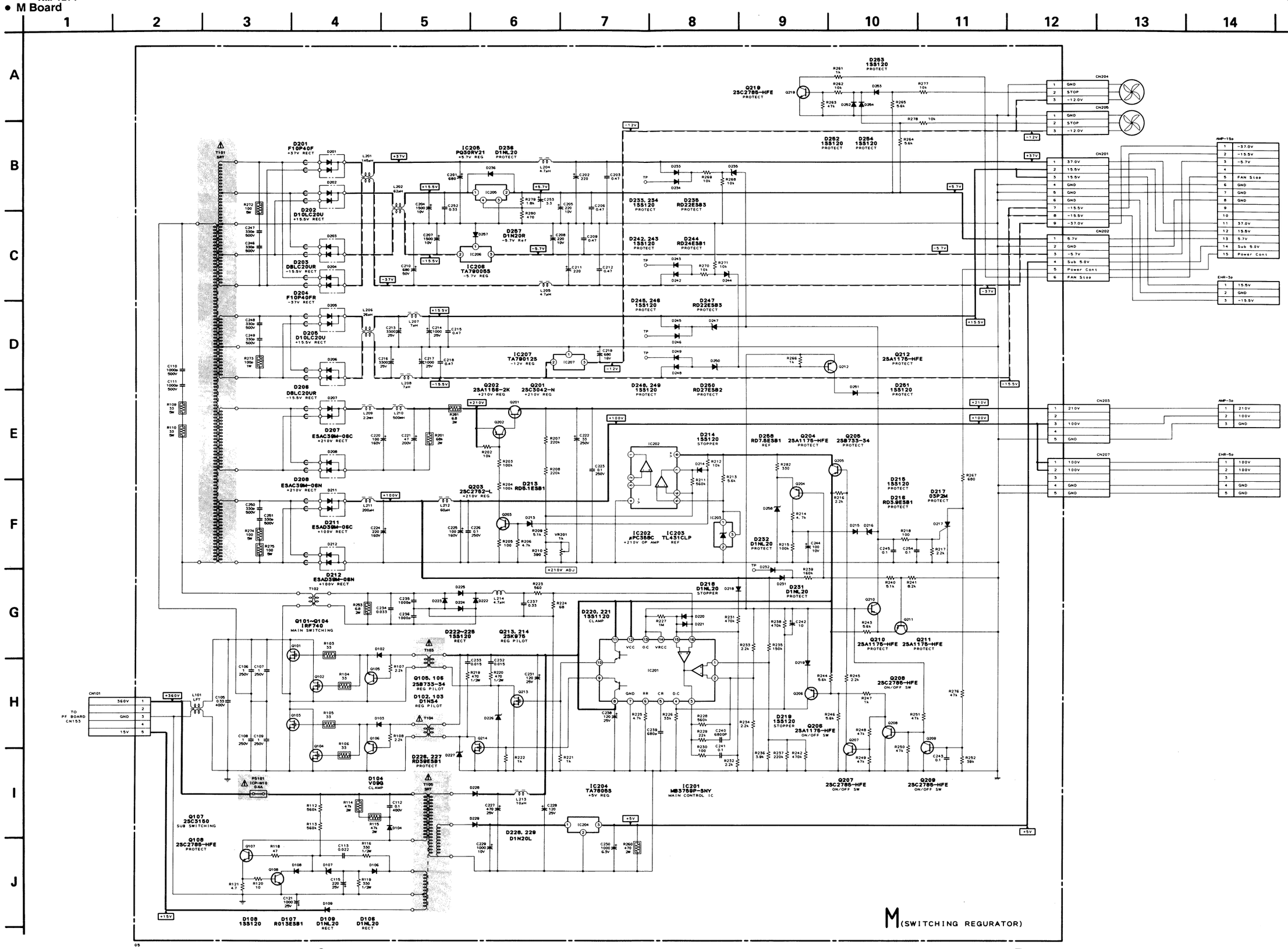
– PF Board –



: Pattern from the side which enables seeing.
: Pattern of the rear side.

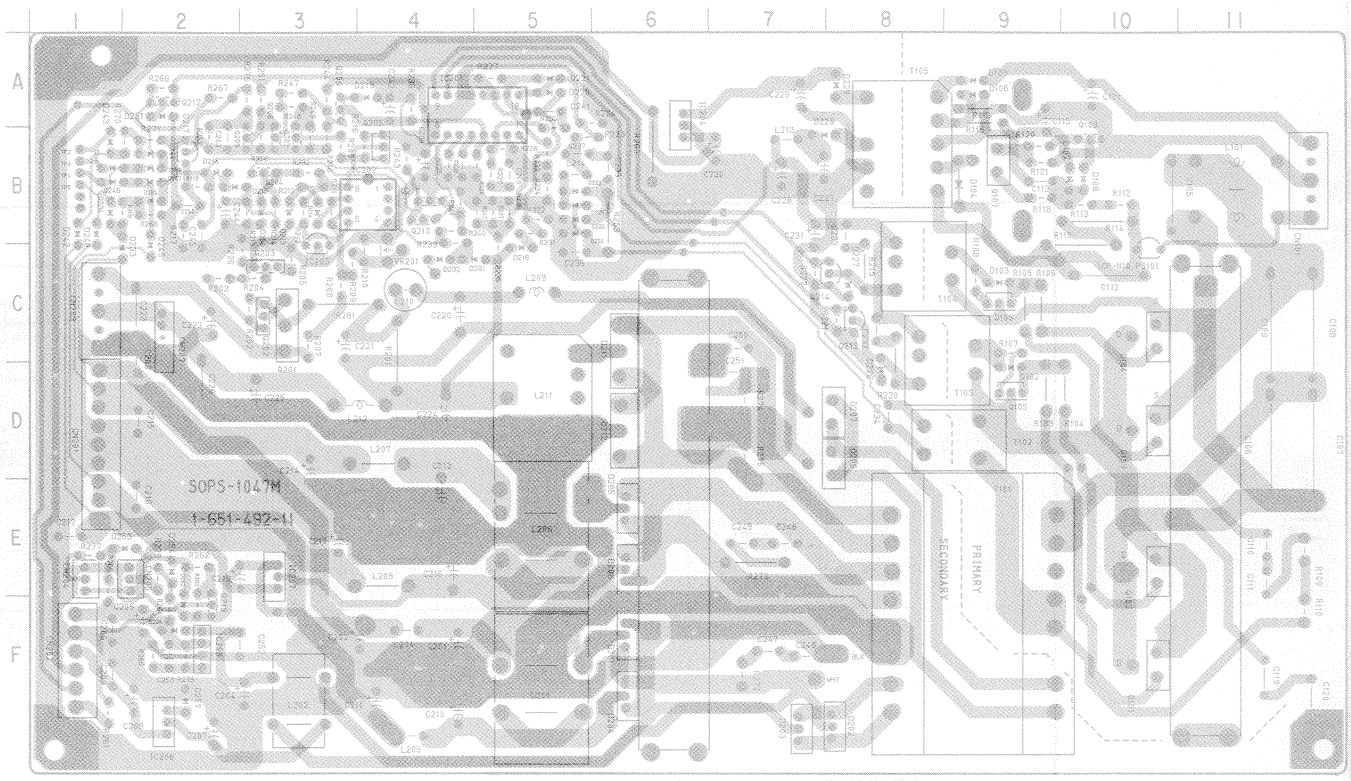
• **PF BOARD**

IC	TRANSISTOR	DIODE	D160 G – 3 D161 F – 3 D162 E – 2 D163 E – 2
IC151 E – 2	Q151 F – 4 Q152 E – 4 Q153 F – 2 Q154 F – 2 Q155 G – 4	D151 C – 7 D152 D – 5 D153 D – 5 D154 D – 4 D156 F – 3 D158 F – 3 D159 G – 5	VARIABLE RESISTOR VR151 G – 5


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I J
D201 F10P40F +37V RECT
D202 D1QLC20U +15.5V RECT
D203 D8LC20UR -15.5V RECT
D204 F10P40FR -37V RECT
D205 D1QLC20U +15.5V RECT
D206 D8LC20UR -15.5V RECT
D207 ESAC58M-08C +210V RECT
D208 ESAC58M-08N +210V RECT
D211 ESAD58M-06C +100V RECT
D212 ESAD58M-08N +100V RECT
IC205 PQ30RV21 +5.7V REG
D236 D1NL20 PROTECT
D257 D1N20R -5.7V Ref
IC206 TA7805S -5.7V REG
IC207 TA7812S -12V REG
Q202 2SA1156-2K +210V REG
Q201 2SC5042-N +210V REG
Q203 2SC2762-L +210V REG
D213 RD5.1ES81
IC202 μPC358C +210V OP AMP
IC203 TL431CLP REF
D214 1SS120 STOPPER
D259 RD7.5ES81 REF
Q204 2SA1175-HFE PROTECT
Q205 2SB733-34 PROTECT
D215 1SS120 PROTECT
D216 RD3.9ES81 PROTECT
D217 DSP2M PROTECT
D232 D1NL20 PROTECT
D218 D1NL20 STOPPER
D251 D1NL20 PROTECT
Q219 2SC2786-HFE PROTECT
D253 1SS120 PROTECT
D252 1SS120 PROTECT
D254 1SS120 PROTECT
D233, 234 1SS120 PROTECT
D235 RD22ES83 PROTECT
D242, 243 1SS120 PROTECT
D244 RD24ES81 PROTECT
D245, 246 1SS120 PROTECT
D247 RD22ES83 PROTECT
D248, 249 1SS120 PROTECT
D250 RD27ES82 PROTECT
Q212 2SA1175-HFE PROTECT
D251 1SS120 PROTECT
D220, 221 1SS120 CLAMP
D222~225 1SS120 RECT
Q213, 214 2SK976 REG PILOT
Q101~Q104 IRF740 MAIN SWITCHING
Q105, 106 2SB733-34 REG PILOT
D102, 103 D1N54 REG PILOT
D226, 227 RD39ES81 PROTECT
D104 V09G CLAMP
Q107 2SC3150 SUB SWITCHING
Q108 2SC2786-HFE PROTECT
IC204 TA78055 +5V REG
IC201 MB3758P-SNY MAIN CONTROL IC
Q207 2SC2786-HFE ON/OFF SW
Q208 2SC2786-HFE ON/OFF SW
Q209 2SC2786-HFE ON/OFF SW
Q210 2SA1175-HFE PROTECT
Q211 2SA1175-HFE PROTECT
D218 D1NL20 STOPPER
D219 1SS120 STOPPER
Q206 2SA1175-HFE ON/OFF SW
D228, 229 D1N20L
D108 1SS120
D107 RD13ES81
D109 D1NL20 RECT
D106 D1NL20 RECT
CN204 GND STOP -12.0V
CN205 GND STOP -12.0V
CN201 37.0V 15.5V 15.5V GND GND GND -15.5V -15.5V -37.0V FAN Stop GND GND 37.0V 15.6V 5.7V Sub 5.0V Power Cont
CN202 5.7V GND -5.7V Sub 5.0V Power Cont FAN Stop
CN203 210V 100V GND
CN207 100V 100V GND GND
AMP-15p
AMP-5p
EHR-3p
EHR-5p
CN101 360V GND 15V
TO PF BOARD CN153
M (SWITCHING REGURATOR)

M [SWITCHING REGURATOR]

– M Board –



: Pattern from the side which enables seeing.
: Pattern of the rear side.

• M BOARD

IC		Q201	C – 3	DIODE		D215	B – 2	D243	B – 1
IC201	A – 4	Q202	C – 3	D102	C – 9	D216	B – 2	D244	B – 2
IC202	B – 3	Q203	C – 3	D103	C – 9	D217	B – 2	D245	C – 2
IC203	C – 3	Q204	B – 3	D104	B – 9	D218	B – 5	D246	B – 1
IC204	B – 6	Q205	B – 4	D106	A – 9	D219	A – 4	D247	B – 2
IC205	F – 2	Q206	A – 3	D107	B – 10	D220	A – 5	D248	B – 1
IC206	F – 2	Q207	B – 3	D108	B – 10	D221	A – 5	D249	B – 1
IC207	E – 3	Q208	B – 3	D109	A – 9	D222	B – 5	D250	B – 2
		Q209	B – 3	D201	F – 6	D223	B – 5	D251	A – 2
TRANSISTOR		Q210	B – 4	D202	F – 8	D224	B – 5	D252	E – 2
Q101	F – 10	Q211	B – 4	D203	F – 7	D225	B – 5	D253	E – 2
Q102	E – 10	Q212	A – 2	D204	F – 6	D226	C – 8	D254	E – 2
Q103	D – 10	Q213	C – 8	D205	E – 6	D227	C – 8	D257	F – 2
Q104	C – 10	Q214	C – 8	D206	E – 6	D228	B – 7	D258	B – 3
Q105	D – 9	Q219	F – 2	D207	D – 8	D229	A – 8		
Q106	C – 9			D208	D – 8	D232	C – 4	VARIABLE RESISTOR	
Q107	B – 9			D211	C – 6	D233	C – 2		
Q108	B – 10			D212	D – 6	D234	B – 1	VR201	C – 4
				D213	B – 3	D235	B – 2		
				D214	B – 3	D236	F – 2		
						D242	B – 1		

SECTION 2
ELECTRICAL PARTS LIST

M

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
• All resistors are in ohms
• F : nonflammable

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	M BOARD				
	**********				
	1-543-923-11	BEAD, FERRITE			
	*2-434-297-01	BRACKET (DP-UR17)			
	*2-434-298-01	BRACKET (TP-UR17)			
	*2-625-675-01	RUBBER (1019), INSULATING			
	3-899-248-11	SCREW (M3X8)			
	*4-028-047-01	HEAT SINK, CLIP TYPE			
	4-560-217-01	RUBBER (1047) (B), INSULATING			
	<CAPACITOR>				
C105	1-136-202-11	FILM	0.33μF	5% 400V	
C106	1-136-626-11	FILM	1μF	10% 250V	
C107	1-136-626-11	FILM	1μF	10% 250V	
C108	1-136-626-11	FILM	1μF	10% 250V	
C109	1-136-626-11	FILM	1μF	10% 250V	
C110	1-161-915-00	CERAMIC	0.001μF	10% 500V	
C111	1-161-915-00	CERAMIC	0.001μF	10% 500V	
C112	1-136-209-11	FILM	0.1μF	5% 400V	
C113	1-136-157-00	FILM	0.022μF	5% 50V	
C115	1-128-376-11	ELECT	220μF	20% 25V	
C121	1-128-386-11	ELECT	1000μF	20% 25V	
C201	1-107-808-11	ELECT	680μF	20% 50V	
C202	1-104-881-11	ELECT	220μF	20% 50V	
C203	1-136-173-00	FILM	0.47μF	5% 50V	
C204	1-128-114-51	ELECT	1500μF	20% 10V	
C205	1-126-987-11	ELECT	220μF	20% 10V	
C206	1-136-173-00	FILM	0.47μF	5% 50V	
C207	1-128-114-51	ELECT	1500μF	20% 10V	
C208	1-126-987-11	ELECT	220μF	20% 10V	
C209	1-136-173-00	FILM	0.47μF	5% 50V	
C210	1-107-808-11	ELECT	680μF	20% 50V	
C211	1-104-881-11	ELECT	220μF	20% 50V	
C212	1-136-173-00	FILM	0.47μF	5% 50V	
C213	1-104-869-11	ELECT	3300μF	20% 25V	
C214	1-128-386-11	ELECT	1000μF	20% 25V	
C215	1-136-173-00	FILM	0.47μF	5% 50V	
C216	1-104-869-11	ELECT	3300μF	20% 25V	
C217	1-128-386-11	ELECT	1000μF	20% 25V	
C218	1-136-173-00	FILM	0.47μF	5% 50V	
C219	1-104-615-11	ELECT	680μF	20% 16V	
C220	1-126-771-11	ELECT	100μF	20% 160V	
C221	1-126-527-11	ELECT	47μF	20% 200V	
C222	1128-476-11	ELECT	33μF	20% 250V	
C223	1136-189-00	FILM	0.1μF	10% 250V	
C224	1126-356-11	ELECT	220μF	20% 160V	
C225	1126-771-11	ELECT	100μF	20% 160V	
C226	1136-189-00	FILM	0.1μF	10% 250V	
C227	1126-376-11	ELECT	470μF	20% 25V	
C228	1128-375-11	ELECT	120μF	20% 25V	
C229	1126-775-11	ELECT	1000μF	20% 10V	
C230	1128-449-11	ELECT	1000μF	20% 6.3V	
C231	1128-375-11	ELECT	120μF	20% 25V	
C232	1130-485-00	MYLAR	0.015μF	5% 50V	
C233	1130-485-00	MYLAR	0.015μF	5% 50V	
C234	1136-159-00	FILM	0.033μF	5% 50V	
C235	1130-471-00	MYLAR	0.001μF	5% 50V	
C236	1130-471-00	MYLAR	0.001μF	5% 50V	
C237	1136-171-00	FILM	0.33μF	5% 50V	
C238	1128-375-11	ELECT	120μF	20% 25V	
C239	1130-016-00	FILM	680pF	5% 50V	
C240	1130-481-00	MYLAR	0.0068μF	5% 50V	
C241	1136-165-00	FILM	0.1μF	5% 50V	
C242	1124-907-11	ELECT	10μF	20% 50V	
C243	1136-165-00	FILM	0.1μF	5% 50V	
C244	1126-375-11	ELECT	100μF	20% 10V	
C245	1136-165-00	FILM	0.1μF	5% 50V	
C246	1102-030-00	CERAMIC	330pF	10% 500V	
C247	1102-030-00	CERAMIC	330pF	10% 500V	
C248	1102-030-00	CERAMIC	330pF	10% 500V	
C249	1102-030-00	CERAMIC	330pF	10% 500V	
C250	1102-030-00	CERAMIC	330pF	10% 500V	
C251	1102-030-00	CERAMIC	330pF	10% 500V	
C252	1136-171-00	FILM	0.33μF	5% 50V	
C253	1126-962-11	ELECT	3.3μF	20% 50V	
C254	1136-165-00	FILM	0.1μF	5% 50V	
	<CONNECTOR>				
CN101	*1-564-242-00	PIN, CONNECTOR 5P			
CN201	*1-564-905-11	PIN, CONNECTOR 9P			
CN202	*1-564-243-11	PIN, CONNECTOR 6P			
CN203	*1-564-242-00	PIN, CONNECTOR 5P			
CN204	*1-560-891-00	PIN, CONNECTOR 3P			

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REF.NO.	PART NO.	DESCRIPTION	REMARK
CN205*1	1-560-891-00	PIN, CONNECTOR 3P	
CN207*1	1-564-508-11	PLUG, CONNECTOR 5P	
		<DIODE>	
D102	8-719-510-02	DIODE D1NS4	
D103	8-719-510-02	DIODE D1NS4	
D104	8-719-900-95	DIODE V09G	
D106	8-719-510-26	DIODE D1NL20-TA	
D107	8-719-110-35	DIODE RD13ESB1	
D108	8-719-912-20	DIODE 1SS120	
D109	8-719-510-26	DIODE D1NL20-TA	
D201	1-807-911-11	DIODE F10P40F	
D202	8-719-510-39	DIODE D10LC20U	
D203	8-719-025-11	DIODE D8LC20UR	
D204	1807-911-21	DIODE F10P40FR	
D205	8-719-510-39	DIODE D10LC20U	
D206	8-719-025-11	DIODE D8LC20UR	
D207	8-719-971-08	DIODE ESAC39M-06C	
D208	8-719-980-00	DIODE ESAC39M-06N	
D211	8-719-043-14	DIODE ESAD39M-06C	
D212	8-719-044-77	DIODE ESAD39M-06N	
D213	8-719-109-84	DIODE RD5.1ESB1	
D214	8-719-912-20	DIODE 1SS120	
D215	8-719-912-20	DIODE 1SS120	
D216	8-719-109-71	DIODE RD3.9ESB1	
D217	8-719-107-87	THYRISTOR 03P2M	
D218	8-719-510-26	DIODE D1NL20-TA	
D219	8-719-912-20	DIODE 1SS120	
D220	8-719-912-20	DIODE 1SS120	
D221	8-719-912-20	DIODE 1SS120	
D222	8-719-912-20	DIODE 1SS120	
D223	8-719-912-20	DIODE 1SS120	
D224	8-719-912-20	DIODE 1SS120	
D225	8-719-912-20	DIODE 1SS120	
D226	8-719-114-14	DIODE RD39ES-T1B1	
D227	8-719-114-14	DIODE RD39ES-T1B1	
D228	8-719-510-26	DIODE D1NL20-TA	
D229	8-719-510-26	DIODE D1NL20-TA	
D231	8-719-510-26	DIODE D1NL20-TA	
D232	8-719-510-26	DIODE D1NL20-TA	
D233	8-719-912-20	DIODE 1SS120	
D234	8-719-912-20	DIODE 1SS120	
D235	8-719-110-58	DIODE RD22ESB3	
D236	8-719-510-26	DIODE D1NL20-TA	
D242	8-719-912-20	DIODE 1SS120	
D243	8-719-912-20	DIODE 1SS120	
D244	8-719-110-61	DIODE RD24ESB1	
D245	8-719-912-20	DIODE 1SS120	
D246	8-719-912-20	DIODE 1SS120	
D247	8-719-110-58	DIODE RD22ESB3	
D248	8-719-912-20	DIODE 1SS120	
D249	8-719-912-20	DIODE 1SS120	
D250	8-719-110-67	DIODE RD27ESB2	
D251	8-719-912-20	DIODE 1SS120	
D252	8-719-912-20	DIODE 1SS120	
D253	8-719-912-20	DIODE 1SS120	
D254	8-719-912-20	DIODE 1SS120	
D257	8-719-510-48	DIODE D1N20R	
D258	8-719-110-02	DIODE RD7.5ESB1	
		<IC>	
IC201	8-759-906-62	IC MB3759P-SNY	
IC202	8-759-135-80	IC μPC358C	
IC203	8-759-908-15	IC TL431CLP	
IC204	8-759-231-53	IC TA7805S	
IC205	8-759-520-49	IC PQ30RV21	
IC206	8-759-245-79	IC TA79005S	
IC207	8-759-245-86	IC TA79012S	
		<COIL>	
L101	1424-058-11	LFT	
L201	1403-676-11	COIL, CHOKE 145.0μH	
L202	1403-674-11	COIL, CHOKE 62.0μH	
L204	1424-254-31	COIL, CHOKE (MOLDE) 4.7μH	
L205	1424-254-31	COIL, CHOKE (MOLDE) 4.7μH	
L206	1403-677-11	COIL, CHOKE 26.0μH	
L207	1406-751-11	COIL, CHOKE 7μH	
L208	1406-751-11	COIL, CHOKE 7μH	
L209	1406-985-11	COIL, CHOKE 2.2mH	
L210	1414-063-11	COIL, CHOKE 500μH	
L211	1403-679-11	COIL, CHOKE 200μH	
L212	1414-061-11	COIL, CHOKE 60μH	
L213	1424-255-11	COIL, CHOKE (MOLDE) 10μH	
L214	1408-966-21	INDUCTOR 4.7μH	
		<IC LINK>	
PS101	Δ1532-605-11	LINK, IC ICP-N10 0.4A 150V	
		<TRANSISTOR>	
Q101	8-729-930-91	TRANSSITOR IRF740	
Q102	8-729-930-91	TRANSSITOR IRF740	
Q103	8-729-930-91	TRANSSITOR IRF740	
Q104	8-729-930-91	TRANSSITOR IRF740	
Q105	8-729-140-93	TRANSISTOR 2SB733-34	
Q106	8-729-140-93	TRANSISTOR 2SB733-34	
Q107	8-729-802-08	TRANSISTOR 2SC3150	
Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-821-53	TRANSISTOR 2SC3042-N	
Q202	8-729-105-97	TRANSISTOR 2SA1156-2K	
Q203	8-729-175-22	TRANSISTOR 2SC2752-L	
Q204	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q205	8-729-140-93	TRANSISTOR 2SB733-34	
Q206	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q207	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q208	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q209	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q210	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q211	8-729-119-76	TRANSISTOR 2SA1175-HFE	

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M

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q212	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q213	8-729-322-38	TRANSISTOR 2SK975			
Q214	8-729-322-38	TRANSISTOR 2SK975			
Q219	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		<RESISTOR>			
R103	1247-694-11	CARBON	33	5%	1/4W F
R104	1247-694-11	CARBON	33	5%	1/4W F
R105	1247-694-11	CARBON	33	5%	1/4W F
R106	1247-694-11	CARBON	33	5%	1/4W F
R107	1249-421-11	CARBON	2.2K	5%	1/4W
R108	1249-421-11	CARBON	2.2K	5%	1/4W
R109	1205-622-00	WIREWOUND	33	5%	5W F
R110	1205-622-00	WIREWOUND	33	5%	5W F
R112	1247-897-11	CARBON	560K	5%	1/4W
R113	1247-897-11	CARBON	560K	5%	1/4W
R114	1215-902-11	METAL OXIDE	47K	5%	2W F
R115	1215-902-11	METAL OXIDE	47K	5%	2W F
R116	1260-093-11	CARBON	330	5%	1/2W
R118	1249-401-11	CARBON	47	5%	1/4W
R119	1260-093-11	CARBON	330	5%	1/2W
R120	1249-393-11	CARBON	10	5%	1/4W
R121	1249-389-11	CARBON	4.7	5%	1/4W
R201	1215-903-11	METAL OXIDE	68K	5%	2W F
R202	1249-429-11	CARBON	10K	5%	1/4W
R203	1249-441-11	CARBON	100K	5%	1/4W
R204	1249-441-11	CARBON	100K	5%	1/4W
R205	1247-807-31	CARBON	100	5%	1/4W
R206	1249-425-11	CARBON	4.7K	5%	1/4W
R207	1215-477-00	METAL	220K	1%	1/4W
R208	1215-477-00	METAL	220K	1%	1/4W
R209	1215-438-00	METAL	5.1K	1%	1/4W
R210	1215-411-00	METAL	390	1%	1/4W
R211	1247-897-11	CARBON	560K	5%	1/4W
R212	1249-429-11	CARBON	10K	5%	1/4W
R213	1249-426-11	CARBON	5.6K	5%	1/4W
R214	1249-425-11	CARBON	4.7K	5%	1/4W
R215	1249-441-11	CARBON	100K	5%	1/4W
R216	1249-421-11	CARBON	2.2K	5%	1/4W
R217	1249-421-11	CARBON	2.2K	5%	1/4W
R218	1247-807-31	CARBON	100	5%	1/4W
R219	1260-095-11	CARBON	470	5%	1/2W
R220	1260-095-11	CARBON	470	5%	1/2W
R221	1249-417-11	CARBON	1K	5%	1/4W
R222	1249-417-11	CARBON	1K	5%	1/4W
R223	1249-414-11	CARBON	560	5%	1/4W
R224	1249-403-11	CARBON	68	5%	1/4W
R225	1215-437-00	METAL	4.7K	1%	1/4W
R226	1249-435-11	CARBON	33K	5%	1/4W
R227	1247-903-00	CARBON	1M	5%	1/4W
R228	1247-897-11	CARBON	560K	5%	1/4W
R229	1247-863-91	CARBON	22K	5%	1/4W
R230	1247-807-31	CARBON	100	5%	1/4W
R231	1215-485-00	METAL	470K	1%	1/4W
R232	1215-429-00	METAL	2.2K	1%	1/4W
R233	1215-429-00	METAL	2.2K	1%	1/4W
R234	1215-429-00	METAL	2.2K	1%	1/4W
R235	1215-473-00	METAL	150K	1%	1/4W
R236	1215-435-00	METAL	3.9K	1%	1/4W
R237	1215-477-00	METAL	220K	1%	1/4W
R238	1247-895-00	CARBON	470K	5%	1/4W
R239	1215-474-00	METAL	160K	1%	1/4W
R240	1215-438-00	METAL	5.1K	1%	1/4W
R241	1215-443-00	METAL	8.2K	1%	1/4W
R242	1215-485-00	METAL	470K	1%	1/4W
R243	1249-426-11	CARBON	5.6K	5%	1/4W
R244	1249-426-11	CARBON	5.6K	5%	1/4W
R245	1249-421-11	CARBON	2.2K	5%	1/4W
R246	1249-426-11	CARBON	5.6K	5%	1/4W
R247	1249-417-11	CARBON	1K	5%	1/4W
R248	1249-437-11	CARBON	47K	5%	1/4W
R249	1249-437-11	CARBON	47K	5%	1/4W
R250	1249-437-11	CARBON	47K	5%	1/4W
R251	1249-437-11	CARBON	47K	5%	1/4W
R252	1249-436-11	CARBON	39K	5%	1/4W
R253	1216-379-11	METAL OXIDE	6.8	5%	2W F
R260	1215-890-11	METAL OXIDE	470	5%	2W F
R261	1249-417-11	CARBON	1K	5%	1/4W
R262	1249-429-11	CARBON	10K	5%	1/4W
R263	1249-437-11	CARBON	47K	5%	1/4W
R264	1249-426-11	CARBON	5.6K	5%	1/4W
R265	1249-426-11	CARBON	5.6K	5%	1/4W
R266	1249-417-11	CARBON	1K	5%	1/4W
R267	1249-415-11	CARBON	680	5%	1/4W
R268	1249-429-11	CARBON	10K	5%	1/4W
R269	1249-429-11	CARBON	10K	5%	1/4W
R270	1249-429-11	CARBON	10K	5%	1/4W
R271	1249-429-11	CARBON	10K	5%	1/4W
R272	1205-624-00	WIREWOUND	100	5%	5W F
R273	1215-863-11	METAL OXIDE	100	5%	1W F
R274	1205-624-00	WIREWOUND	100	5%	5W F
R275	1205-624-00	WIREWOUND	100	5%	5W F
R276	1249-437-11	CARBON	47K	5%	1/4W
R277	1249-429-11	CARBON	10K	5%	1/4W
R278	1249-429-11	CARBON	10K	5%	1/4W
R279	1215-427-00	METAL	1.8K	1%	1/4W
R280	1215-413-00	METAL	470	1%	1/4W
R281	1216-379-11	METAL OXIDE	6.8	5%	2W F
R282	1249-411-11	CARBON	330	5%	1/4W
		<TRANSFORMER>			
T101	⚠ 1-426-640-11	TRANSFORMER, CONVERTER (SRT)			
T102	1421-819-11	TRANSFORMER, CURRENT			
T103	⚠ 1437-188-11	TRANSFORMER, DRIVE			
T104	⚠ 1437-188-11	TRANSFORMER, DRIVE			
T105	⚠ 1-426-641-11	TRANSFORMER, CONVERTER (SRT)			
		<VARIABLE RESISTOR>			
VR201	1241-076-11	RES, ADJ, CARBON	1K		

PF

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
**********					
		PF BOARD			
		**********			
⚠	1-251-185-11	POWER BLOCK			
	1-410-396-41	FERRITE BEAD INDUCTOR			
*	1-533-213-31	HOLDER, FUSE			
*	2-434-297-01	BRACKET (DP-UR17)			
	3-899-248-11	SCREW (M3X8)			
	4-560-217-01	RUBBER (1047) (B), INSULATING			
		<CAPACITOR>			
C151	⚠ 1-137-110-11	FILM	0.47µF	20%	250V (AEP)
C152	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C152	⚠ 1-162-599-81	CERAMIC	0.0047µF	20%	400V (AEP)
C153	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C153	⚠ 1-162-599-81	CERAMIC	0.0047µF	20%	400V (AEP)
C154	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C155	⚠ 1-137-110-11	FILM	0.47µF	20%	250V
C156	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C156	⚠ 1-161-742-81	CERAMIC	0.0022µF	20%	400V (AEP)
C157	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C157	⚠ 1-161-742-81	CERAMIC	0.0022µF	20%	400V
C158	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C159	⚠ 1-137-110-11	FILM	0.47µF	20%	250V
C160	1-136-425-11	FILM	4.7µF	10%	250V (U/C)
C160	1-137-479-11	FILM	1µF	10%	400V (AEP)
C161	1-137-479-11	FILM	1µF	10%	400V
C162	1-107-805-11	ELECT	820µF	20%	400V
C165	1-162-599-12	CERAMIC	0.0047µF	20%	400V
C166	1-136-165-00	FILM	0.1µF	5%	50V
C167	1-130-471-00	MYLAR	0.001µF	5%	50V
C168	1-162-117-00	CERAMIC	100pF	10%	500V
C169	1-136-165-00	FILM	0.1µF	5%	50V
C170	1-136-173-00	FILM	0.47µF	5%	50V
C171	1-136-169-00	FILM	0.22µF	5%	50V
C172	1-130-471-00	FILM	0.001µF	5%	50V
C173	1-136-165-00	FILM	0.1µF	5%	50V
C174	1-136-165-00	FILM	0.1µF	5%	50V
C176	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C176	⚠ 1-161-973-81	CERAMIC	220pF	10%	400V (AEP)
C177	⚠ 1-161-973-81	CERAMIC	220pF	10%	400V (AEP)
C178	⚠ 1-161-741-81	CERAMIC	0.001µF	10%	400V (U/C)
C179	1-102-030-00	CERAMIC	330pF	10%	500V
C181	1-136-165-00	FILM	0.1µF	5%	50V
C182	1-124-903-11	ELECT	1µF	20%	50V
C183	1-124-478-11	ELECT	100µF	20%	25V
C184	⚠ 1-137-109-11	FILM	0.22µF	20%	250V (U/C)
C185	⚠ 1-137-109-11	FILM	0.22µF	20%	250V (AEP)
		<CONNECTOR>			
CN151	* 1-535-419-00	TAB, FASTEN (PCB)			
CN152	* 1-535-419-00	TAB, FASTEN (PCB)			
CN153	* 1-564-242-00	PIN, CONNECTOR 5P			

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D151	⚠ 8-719-033-58	DIODE RBV-1506			
D152	8-719-912-20	DIODE 1SS120			
D153	8-719-044-70	DIODE S16L60			
D154	8-719-044-70	DIODE S16L60			
D156	8-719-510-02	DIODE D1NS4			
D158	8-719-510-02	DIODE D1NS4			
D159	8-719-110-04	DIODE RD7.5ESB3			
D160	8-719-510-02	DIODE D1NS4			
D161	8-719-107-87	THYRISTOR 03P2M			
D162	8-719-110-03	DIODE RD7.5ESB2			
D163	8-719-510-02	DIODE D1NS4			
D170	8-719-110-56	DIODE RD22ESB1			
D171	8-719-110-56	DIODE RD22ESB1			
D172	8-719-510-02	DIODE D1NS4			
		<FUSE>			
F151	⚠ 1-576-048-11	FUSE, GLASS TUBE	10A/125V		(U/C)
F151	⚠ 1-576-233-41	FUSE (H.B.C.)	6.3A/250V		(AEP)
		<IC>			
IC151	8-759-191-54	IC UC3854N			
		<COIL>			
L151	⚠ 1-426-635-11	TRANSFORMER, LINE FILTER			
L152	⚠ 1-426-636-11	TRANSFORMER, LINE FILTER			
L153	⚠ 1-403-675-11	COIL, CHOKE	34.0µH		(U/C)
L153	⚠ 1-409-648-11	COIL, CHOKE	140µH		(AEP)
L154	⚠ 1-403-675-11	COIL, CHOKE	34.0µH		(U/C)
L154	⚠ 1-409-648-11	COIL, CHOKE	140µH		(AEP)
L155	1-403-673-11	COIL, CHOKE	480µH		
		<TRANSISTOR>			
Q151	1-807-858-11	TRANSISTOR IRFP451			
Q152	1-807-858-11	TRANSISTOR IRFP451			
Q153	8-729-140-96	TRANSISTOR 2SD774-34			
Q154	8-729-140-97	TRANSISTOR 2SB734-34			
Q155	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		<RESISTOR>			
R151	⚠ 1-202-847-51	SOLID	560K	10%	1/2W
R152	⚠ 1-217-783-11	FUSIBLE	4.7	5%	5W F
R154	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R155	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R156	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R157	1-215-902-11	METAL OXIDE	47K	5%	2W F
R158	1-215-902-11	METAL OXIDE	47K	5%	2W F
R159	1-249-441-11	CARBON	100K	5%	1/4W
R160	1-247-688-11	CARBON	10	5%	1/4W F
R161	1-249-381-11	CARBON	1	5%	1/4W
R162	1-249-441-11	CARBON	100K	5%	1/4W
R163	1-247-688-11	CARBON	10	5%	1/4W F
R164	1-249-381-11	CARBON	1	5%	1/4W
R165	1-247-889-00	CARBON	270K	5%	1/4W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

PF

REF.NO.	PART NO.	DESCRIPTION			REMARK
R166	1-247-889-00	CARBON	270K	5%	1/4W
R167	1-215-447-00	METAL	12K	1%	1/4W
R168	1-249-441-11	CARBON	100K	5%	1/4W
R169	1-249-923-11	CARBON	1K	5%	1/4W F
R170	1-215-438-00	METAL	5.1K	1%	1/4W
R171	1-247-863-91	CARBON	22K	5%	1/4W
R172	1-249-425-11	CARBON	4.7K	5%	1/4W
R173	1-249-417-11	CARBON	1K	5%	1/4W
R174	1-249-427-11	CARBON	6.8K	5%	1/4W
R175	1-247-887-00	CARBON	220K	5%	1/4W
R176	1-260-135-11	CARBON	1M	5%	1/2W
R177	1-260-135-11	CARBON	1M	5%	1/2W
R178	1-249-441-11	CARBON	100K	5%	1/4W
R179	1-247-863-91	CARBON	22K	5%	1/4W
R180	1-215-449-00	METAL	15K	1%	1/4W
R181	1-247-883-00	CARBON	150K	5%	1/4W
R182	1-215-862-11	METAL OXIDE	68	5%	1W F
R183	1-249-417-11	CARBON	1K	5%	1/4W
R184	1-249-417-11	CARBON	1K	5%	1/4W
R185	1-249-427-11	CARBON	6.8K	5%	1/4W
R190	1-249-441-11	CARBON	100K	5%	1/4W
R191	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R192	1-249-437-11	CARBON	47K	5%	1/4W
R193	1-249-425-11	CARBON	4.7K	5%	1/4W
R194 ⚠	1-202-847-51	SOLID	560K	10%	1/2W (U/C)
R195	1-247-903-00	CARBON	1M	5%	1/4W
		<RELAY>			
*RY151 ⚠	1-515-868-11	RELAY			
		<VARIABLE RESISTOR>			
VR151	1-241-076-11	RES, ADJ, CARBON	1K		
		<VARISTOR>			
VZ151 ⚠	1-809-581-11	VARISTOR			
		<MISCELLANEOUS>			
		**********			
	1-251-183-11	CONTROL BLOCK			
	1-251-184-11	WIRE BLOCK			
	1-698-331-11	FAN, DC			

9-978-380-81

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B&I Systems Company

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VPH-1272QM/Q

RM-1271

SONY

SERVICE MANUAL

VPH-1272QM
AEP Model
Serial No. 2,000,001 and later
Chassis No. SCC-D13D-A

VPH-1272Q
US and Canadian Model
Serial No. 2,000,001 and later
Chassis No. SCC-D-27D-A

SUPPLEMENT-4

File this supplement with the service manual.

INTRODUCTION

Subject : Change of K, DM, E, PA, Y, BB Boards, and Power Supply.

TABLE OF CONTENTS

Section *Title* *Page*

1. SET-UP ADJUSTMENT
   1-1. High-Voltage Picture Bending Adjustment 4
2. DIAGRAM
   2-1. Frame Schematic Diagram 5
   2-2. Schematic Diagrams and Printed Wiring Boards 9
   - BB Board 10
   - E Board 15
   - Y Board 20
   - DM Board 27
   - PA, KC, KF Boards 34
3. ELECTRICAL PARTS LIST
   - BB Board 40
   - PA Board 44
   - DM Board 46
   - E Board 47
   - KC Board 50
   - KF Board 51
   - Y Board 52

Model/Serial No.

VPH-1272QM 2000001-
VPH-1272Q 2000001-
VPH-1252QM 2000001-
VPH-1252Q 2000001-

Description

To improve the Picture quality, the following components have been changed.

1. K Board, DM Board
2. E Board, PA Board
3. Power Supply Block
4. Y Board
5. BB Complete Mounted Circuit Board

The color of the model plate has been changed from blue to silver.

[1] K Board

The dynamic focus at input of frequency horizontal signal has been improved.

1. Change from K mounted circuit board to KC mounted circuit board.
   Former : K mounted circuit board A-1380-466-A
   New : KC mounted circuit board A-1380-521-A
2. KF board is newly created.
   New : KF mounted circuit board A-1380-522-A
3. DM mounted circuit board

Model	Former	New
VPH-1272QM VPH-1272Q	A-1341-443-A	A-1341-443-B
VPH-1252QM VPH-1252Q	A1341-483-A	A-1341-483-B

Former and new boards of K and DM are not compatible. Use the former board for units with serial No. earler than above-mentioned.

[2] E Board, PA Board

High-Voltage Picture Bending has been corrected.

Board	Former	New
E Board	A-1346-190-A	A-1346-190-B
PA Board	A-1195-081-B	A-1195-081-C

The former and new boards are compatible. However, High-Voltag Picture Bending can not be corrected. Because the wires connectir between connector E-14 and CN-296 are not provided for the form board. Thus, the correction signal can not be fed between the E boa and PA board.

When replacing the E or PA board on the units with serial No. high than the above-mentioned, perform High-Voltage Picture Bendir adjustment.

[3] Power Supply Block

Turning power on from the RS-422 is available.

Model	Former	New
VPH-1272Q VPH-1252Q	1-413-934-11	1-413-934-12
VPH-1272QM VPH-1252QM	1-413-935-11	1-413-935-12

The former and new power supply blocks are compatible.

[4] Y Board

The power on/off from RS-422 and the SW'ER selection are availabl The left edge of TEST PATTERN does not appear. This proble has been corrected.

Model	Former	New
VPH-1272Q VPH-1272QM VPH-1252Q VPH-1252QM	A-1394-677-A	A-1394-749-A

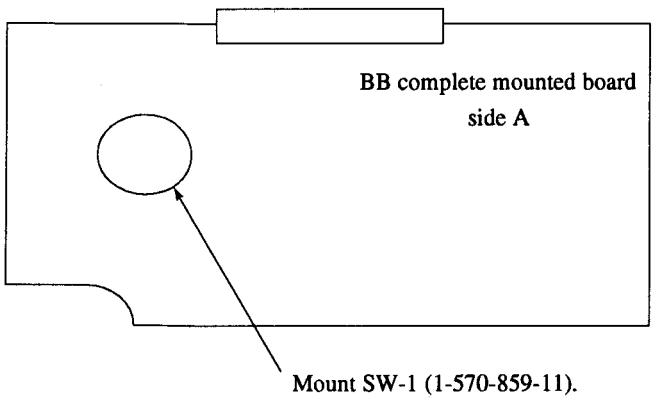
The former and new Y boards are NOT compatible.

[5] BB Complete Mounted Circuit

5BNC switch relocated on the panel. Therefore, the switch selection is possible without plugging out the BB board.

Model	Former	New
VPH-1272Q VPH-1272QM VPH-1252Q VPH-1252QM	A-1135-693-A	A-1135-693-B

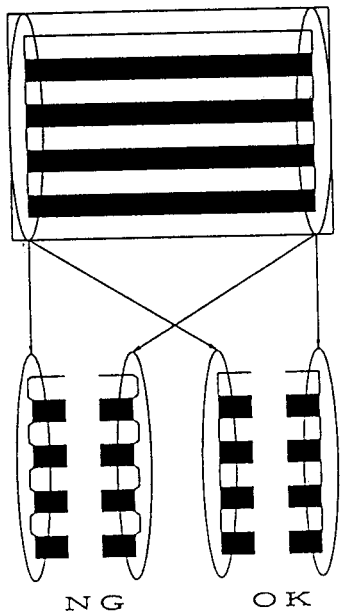
When using a new BB complete mounted circuit board in units with serial No. earlier than the mentioned, mount the SW-1 on the BB board as shown below.



SECTION 1
SET-UP ADJUSTMENT

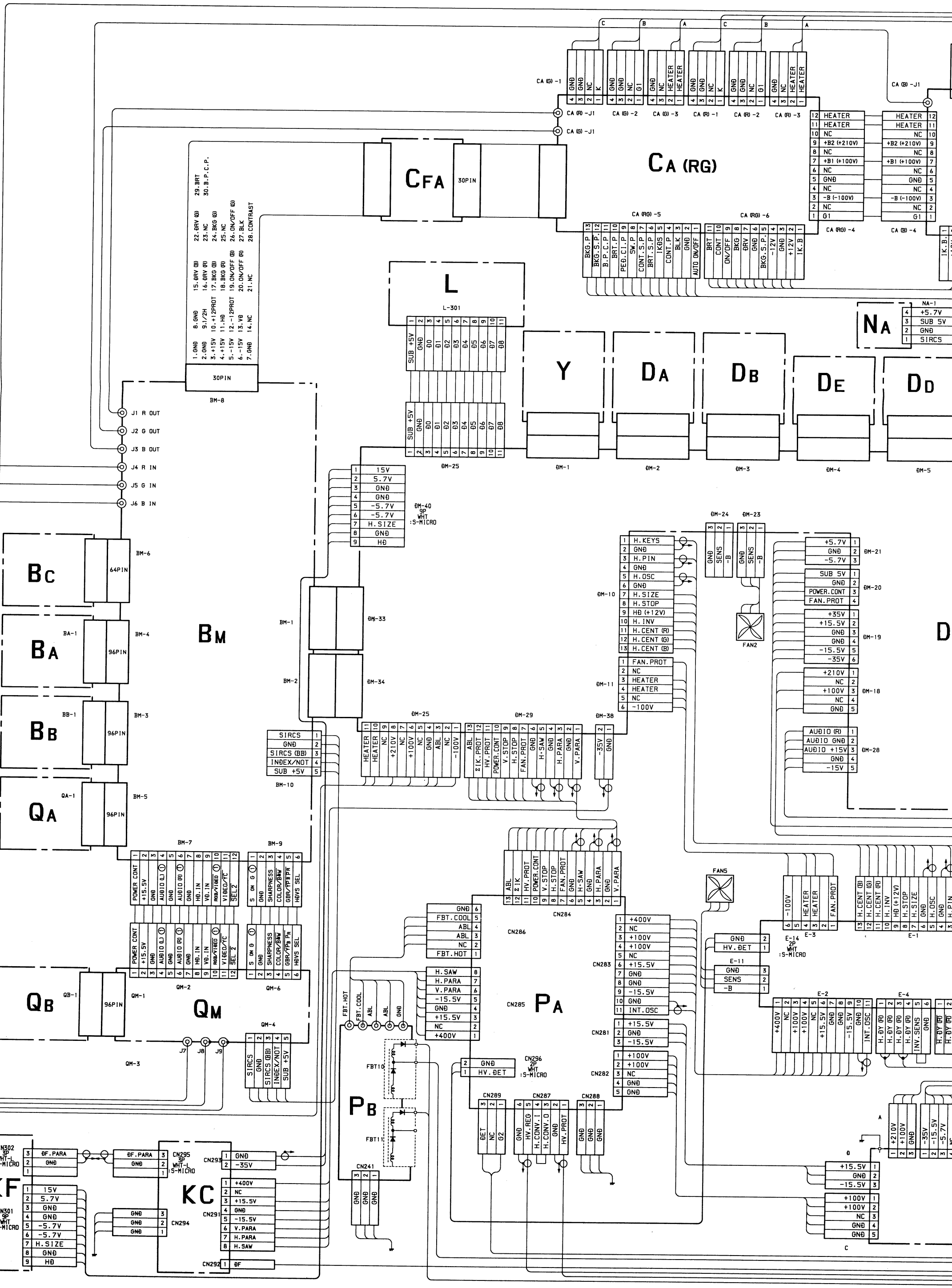
1-1.HIGH-VOLTAGE PICTURE BENDING ADJUSTMENT

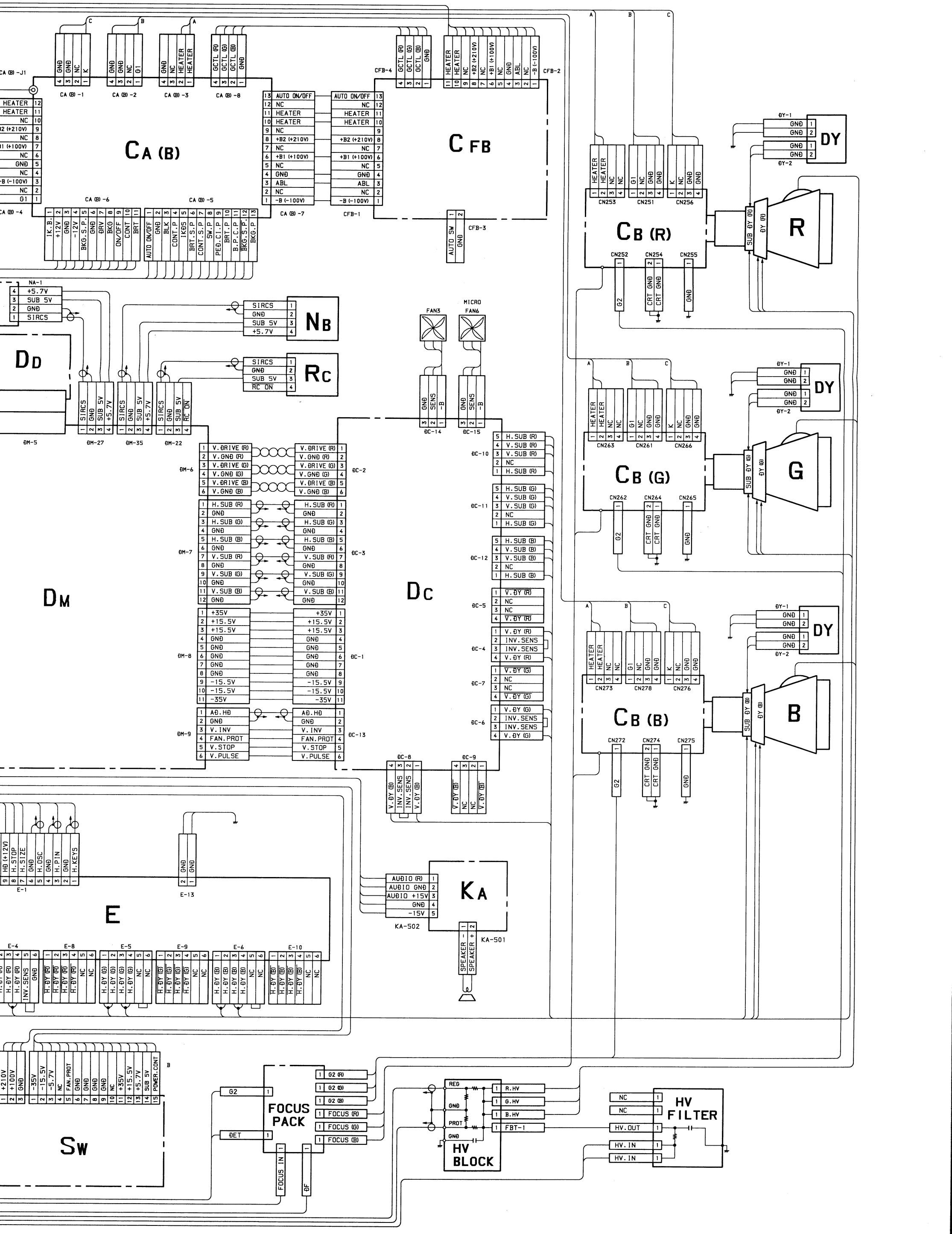
1. RV101 Adjustment (E Board)
   1. Press the INPUT A key to receive and show the RGB stripe signal of fH : 31.5kHz.
   2. Keep pressing the CONTR and BRIGHT (+) keys until their levels become MAX.
   3. Adjust RV101 on the E board until the vertical lines in the right and left become straight.



SECTION 2
DIAGRAMS

2-1. FRAME SCHEMATIC DIAGRAMS




CA (B)
C FB
CB (R)
CB (G)
CB (B)
DY
R
G
B
DM
DC
DD
NB
RC
KA
E
SW
FOCUS PACK
HV BLOCK
HV FILTER
FAN3
FAN6
MICRO
CA (B) -1
CA (B) -2
CA (B) -3
CA (B) -8
CA (B) -J1
CA (B) -4
CA (B) -6
CA (B) -5
CA (B) -7
CFB-1
CFB-2
CFB-3
CFB-4
CN253
CN251
CN256
CN252
CN254
CN255
CN263
CN261
CN266
CN262
CN264
CN265
CN273
CN278
CN276
CN272
CN274
CN275
ĐM-5
ĐM-27
ĐM-35
ĐM-22
ĐM-6
ĐM-7
ĐM-8
ĐM-9
ĐC-1
ĐC-2
ĐC-3
ĐC-4
ĐC-5
ĐC-6
ĐC-7
ĐC-8
ĐC-9
ĐC-10
ĐC-11
ĐC-12
ĐC-13
ĐC-14
ĐC-15
ĐY-1
ĐY-2
KA-501
KA-502
E-1
E-13
E-4
E-8
E-5
E-9
E-6
E-10
NA-1

2-2. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms, 1/4W in resistance, 1/10W in chip resistance.
  kΩ = 1000Ω, MΩ = 1000kΩ
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- # marked in these schematic diagrams signifies not mounted.

- The components identified by ⊠ in this basic schematic diagrams have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⊠ and repeat the adjustment untill the specified value is achieved.

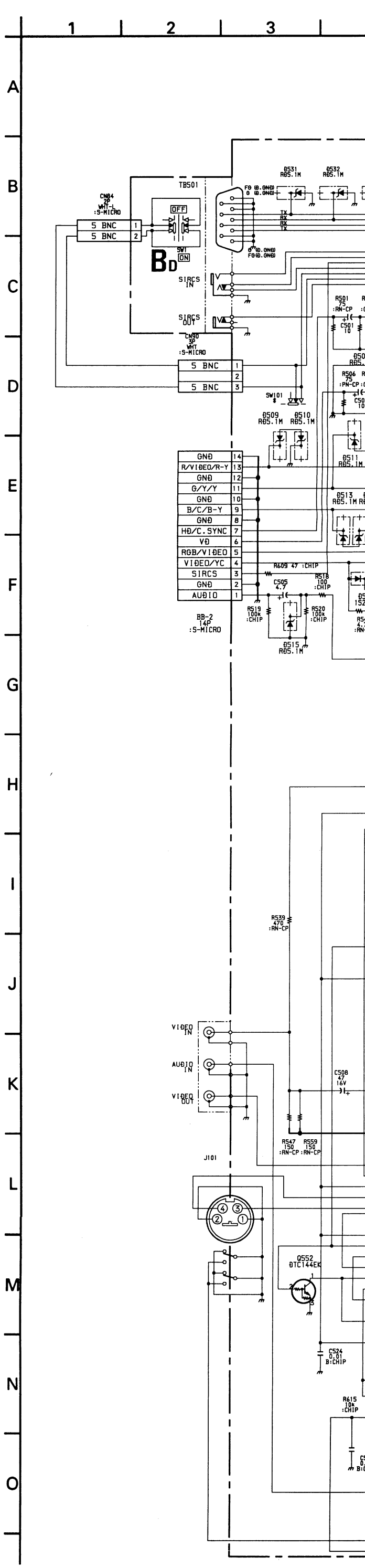
Part replaced (◪)	Adjustment (⊠)
IC2, Q7, D9, D12, C13, R20, R21, R22, R23, R24, R33, R34, R35, R36, R82 (PA BOARD) PA MOUNT HV BLOCK	HV HOLD DOWN (R33, R34)
IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13, R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1 (PA BOARD) PA MOUNT, PB MOUNT HV BLOCK	HV REGULATION (R131, R132)
C2, IC3, IC5, Q1, Q2, Q7, Q8, D4, D5, D9, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R20, R21, R22, R23, R24, R43, R44, R45, R46, R47, R82, R88, R121. R122, (PA BOARD), R143, R144 R733, (DA BOARD) PA MOUNT, PB MOUNT	BEAM CURRENT PROTECTOR (R1, R4)
IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R29, R30, R31, R88, R95, (PA BOARD) PA MOUNT	LOW B PROTECTOR (R29, R30)

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFRAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



Schematic diagram
BB **board** ➡

ETAL FILM
OLID
ONFRAMMABLE CARBON
ONFLAMMABLE FUSIBLE
ONFLAMMABLE METAL OXIDE
ONFLAMMABLE CEMENT
ONFLAMMABLE WIREWOUND
DJUSTMENT RESISTOR

ICRO INDUCTOR

ANTALUM
TYROL
OLYPROPYLENE
YLAR
ETALIZED POLYESTER
ETALIZED POLYPROPYLENE
IPOLAR
IGH TEMPERATURE
IGH RIPPLE

dentified by shading and mark
r safety. Replace only with part
d.

identifies par une trame et une
critiques pour la securite. Ne les
ar une piece portant le numero

Schematic diagram

BB board ➡

注) H.SYNC (....) ⟶ H.S. (....)
V.SYNC (....) ⟶ V.S. (....)

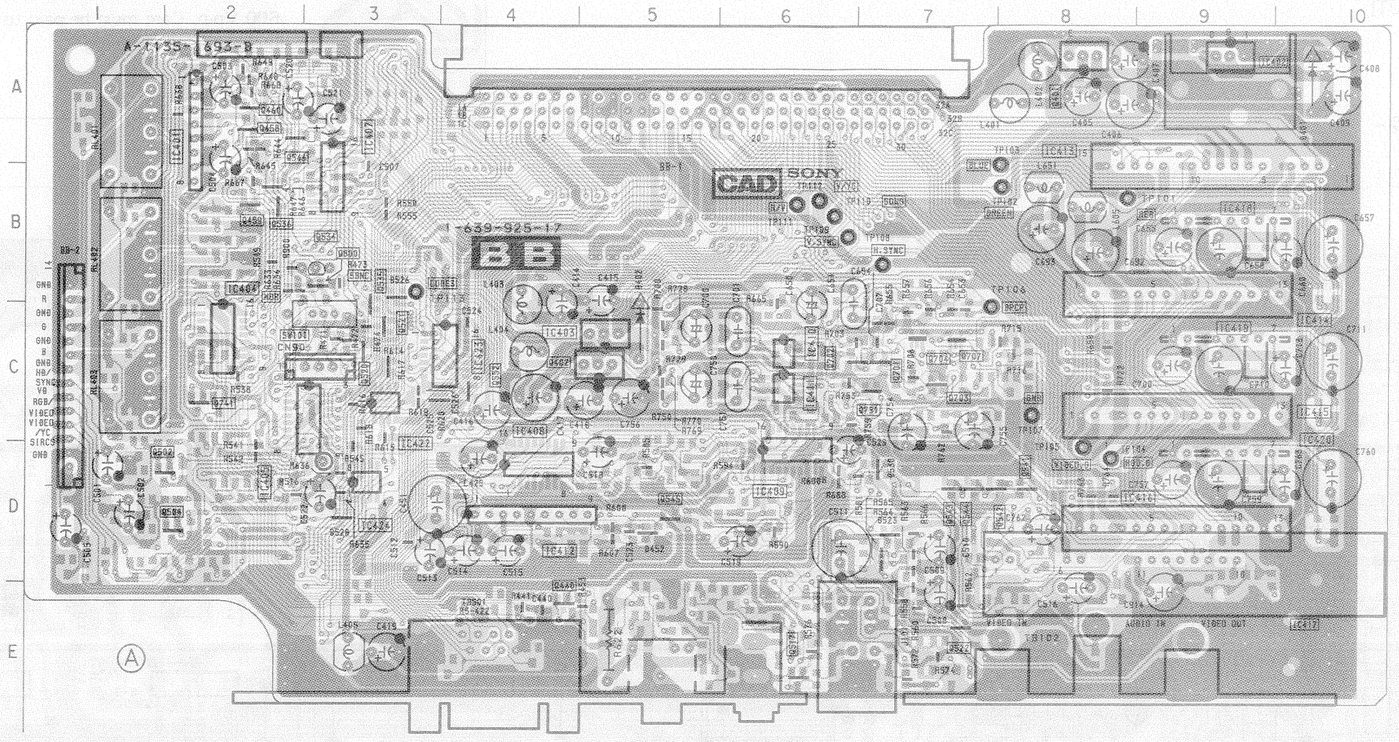
VIDEO/$\overline{YC}$ (IF.BB) ⟶ VIDEO/$\overline{YC}$ (-)
VIDEO/$\overline{YC}$ (BB.Y) ⟶ VIDEO/$\overline{YC}$ (2)
RGB/$\overline{VIDEO}$ (IF.BB) ⟶ RGB/$\overline{VIDEO}$ (-)(2)
RGB/$\overline{VIDEO}$ (BB.Y) ⟶ RGB/$\overline{VIDEO}$ (2)

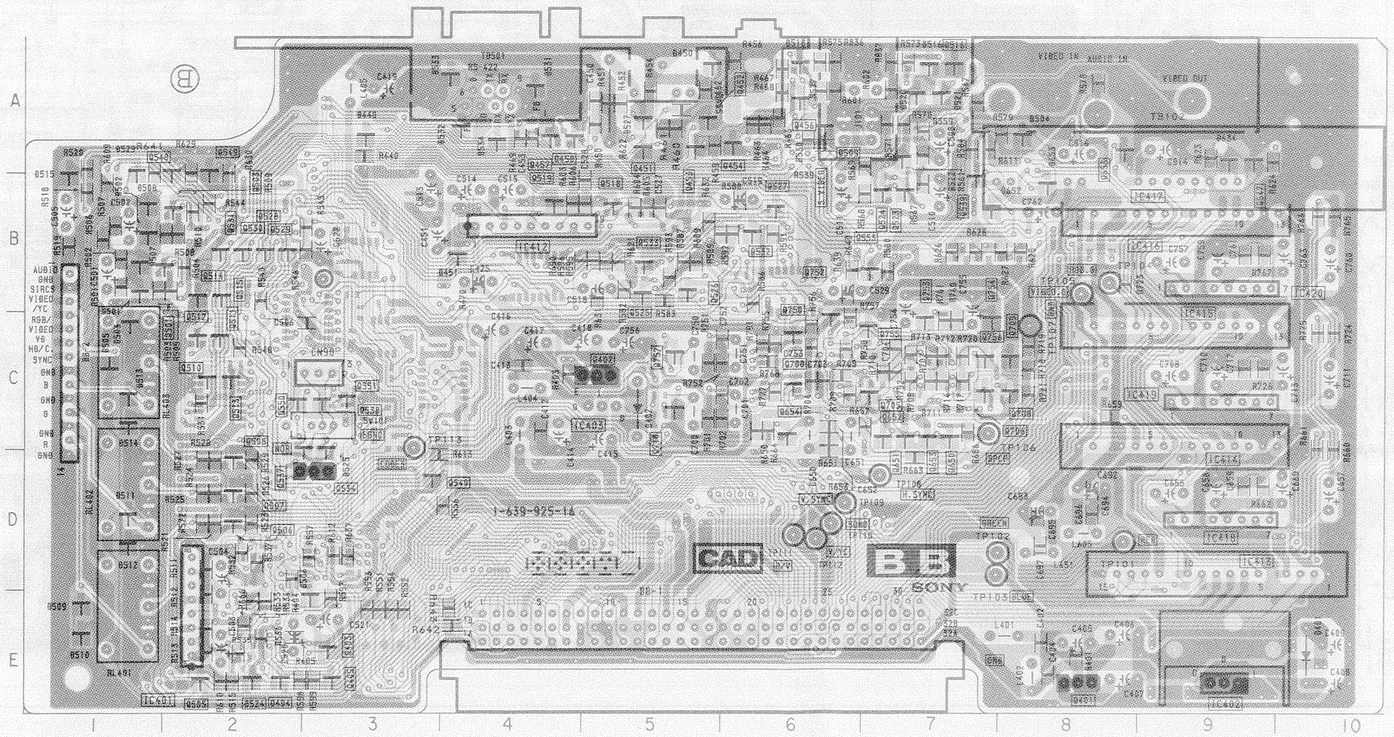
BPCP

IC410 μPC4558G2
IC411 μPC4558G2
IC412 μPC1406HA
IC413 BX-6474
IC414 BX-6473
IC415 BX-6473
IC416 BX-6473
IC417 BX-7913
IC418 BX-6574
IC419 BX-6574
IC420 BX-6574
IC424 μPC393G2
IC403 LM7912H
IC409 HD14053BFP

<R.CHA>
<GAIN>
VIDEO.G
RGB.G
<VIDEO/RGB>
<NOR/TEST>
<+5V>
<+12V>
RED
GREEN
BLUE

– BB BOARD – <Component Side>





BB BOARD (COMPONENT SIDE)

IC	
IC401	A-2
IC402	A-9
IC403	C-5
IC404	C-2
IC405	D-2
IC407	B-3
IC408	D-4
IC409	D-6
IC410	C-6
IC411	C-6
IC412	D-4
IC413	B-9
IC414	B-9
IC415	C-9
IC416	D-9
IC417	E-9
IC418	B-9
IC419	C-9
IC420	D-9
IC422	C-3
IC423	C-4
IC424	D-3

TRANSISTOR	
Q401	A-8
Q402	C-4
Q440	E-4
Q458	A-2
Q459	B-2
Q460	A-2
Q502	D-2
Q504	D-2
Q517	E-6
Q520	C-3
Q521	C-3
Q522	E-7
Q534	B-3
Q535	B-3
Q536	B-2
Q541	D-8
Q542	D-8
Q543	D-7
Q544	D-7
Q545	D-5
Q546	A-2
Q552	C-4
Q701	C-7
Q702	C-7
Q703	C-7
Q704	C-7
Q707	C-7
Q741	C-2
Q751	C-7
Q800	B-3

DIODE	
D401	A-10
D402	C-5
D452	D-5
D523	D-7
D526	B-3
D528	D-3
D530	D-7

BB BOARD (CONDUCTOR SIDE)

IC	
IC401	E-2
IC402	E-9
IC403	C-5
IC412	B-4
IC413	D-9
IC414	D-9
IC415	C-9
IC416	B-9
IC417	B-9
IC418	D-9
IC419	C-9
IC420	B-9

TRANSISTOR	
Q401	E-8
Q402	C-5
Q403	E-3
Q404	E-2
Q405	E-3
Q450	A-4
Q451	A-5
Q452	A-5
Q453	A-5
Q454	A-6
Q456	A-6
Q457	A-4
Q501	B-2
Q503	B-2
Q506	D-2
Q507	D-2
Q508	D-2
Q509	A-6
Q510	C-2
Q511	C-2
Q512	C-2
Q513	C-3
Q514	B-2
Q515	B-2
Q516	A-7
Q518	B-5
Q519	B-4
Q523	B-7
Q524	B-7
Q525	B-5
Q526	B-5
Q527	B-6
Q528	B-2
Q529	B-2
Q530	B-2
Q531	B-2
Q532	B-6
Q533	B-5
Q534	D-3
Q537	D-3
Q538	C-3
Q539	B-7
Q540	D-3
Q547	B-9
Q548	A-2
Q549	A-2
Q550	C-2
Q551	C-3
Q553	B-7
Q650	C-7
Q651	C-7
Q652	C-7
Q653	C-7
Q654	C-6
Q656	A-8
Q700	C-6
Q705	C-7
Q706	C-7
Q708	C-8
Q709	C-8
Q710	C-5
Q750	C-6
Q752	C-6
Q753	C-7
Q754	C-7
Q755	C-7
Q756	C-7
Q757	C-5

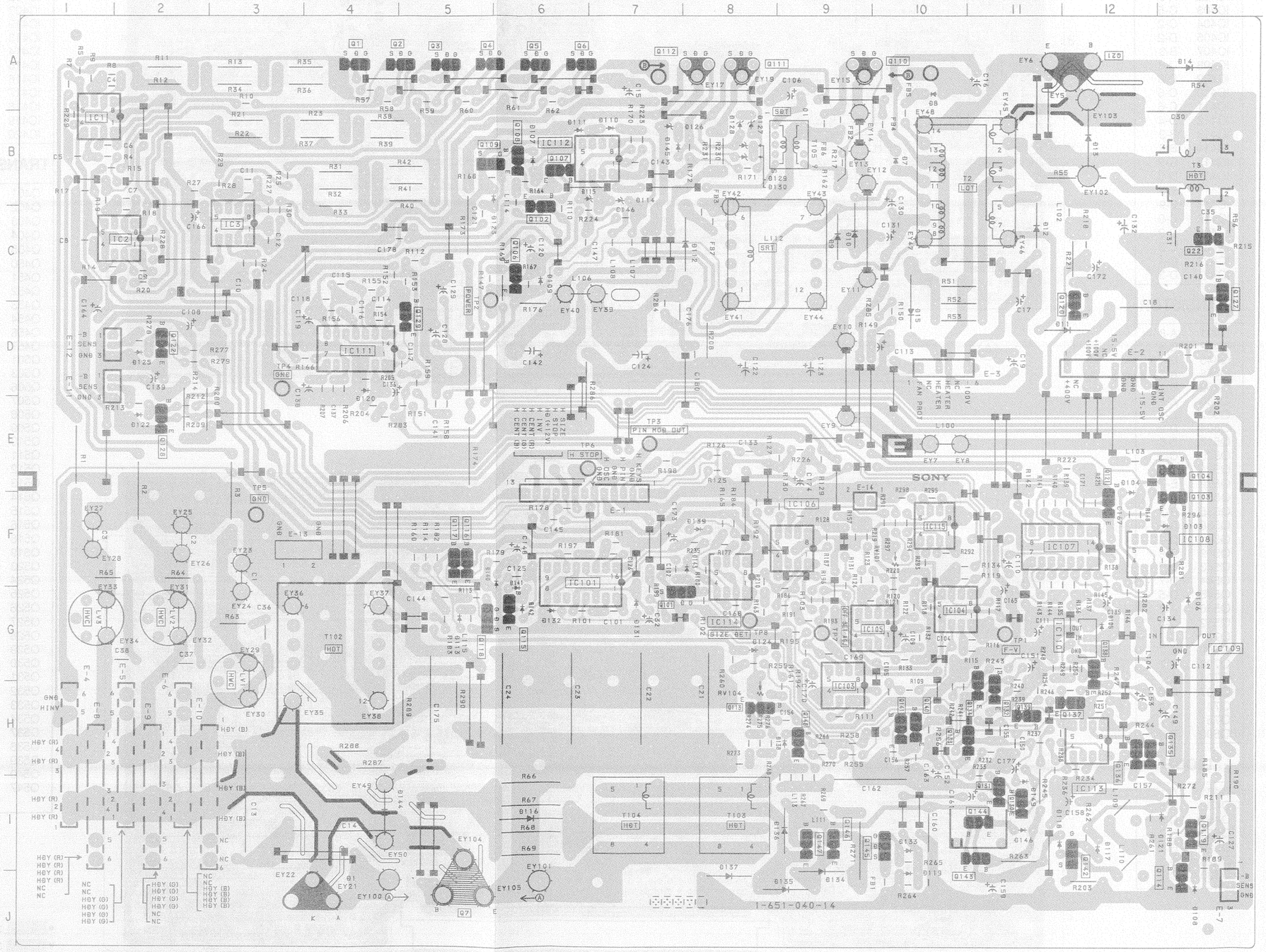
DIODE	
D401	E-10
D402	C-5
D440	A-3
D450	A-5
D451	B-4
D501	B-1
D502	B-1
D503	C-1
D504	A-8
D505	C-1
D506	E-3
D507	B-1
D508	B-1
D509	E-1
D510	E-1
D511	D-1
D512	D-1
D513	C-1
D514	C-1
D515	B-1
D516	A-7
D518	A-6
D520	A-7
D521	A-7
D522	A-7
D524	E-2
D525	D-3
D527	A-5
D529	A-1
D531	A-4
D532	A-4
D533	A-4
D534	A-4
D634	A-9
D652	B-7
D653	B-8

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

E [H OUT]

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

– E BOARD –



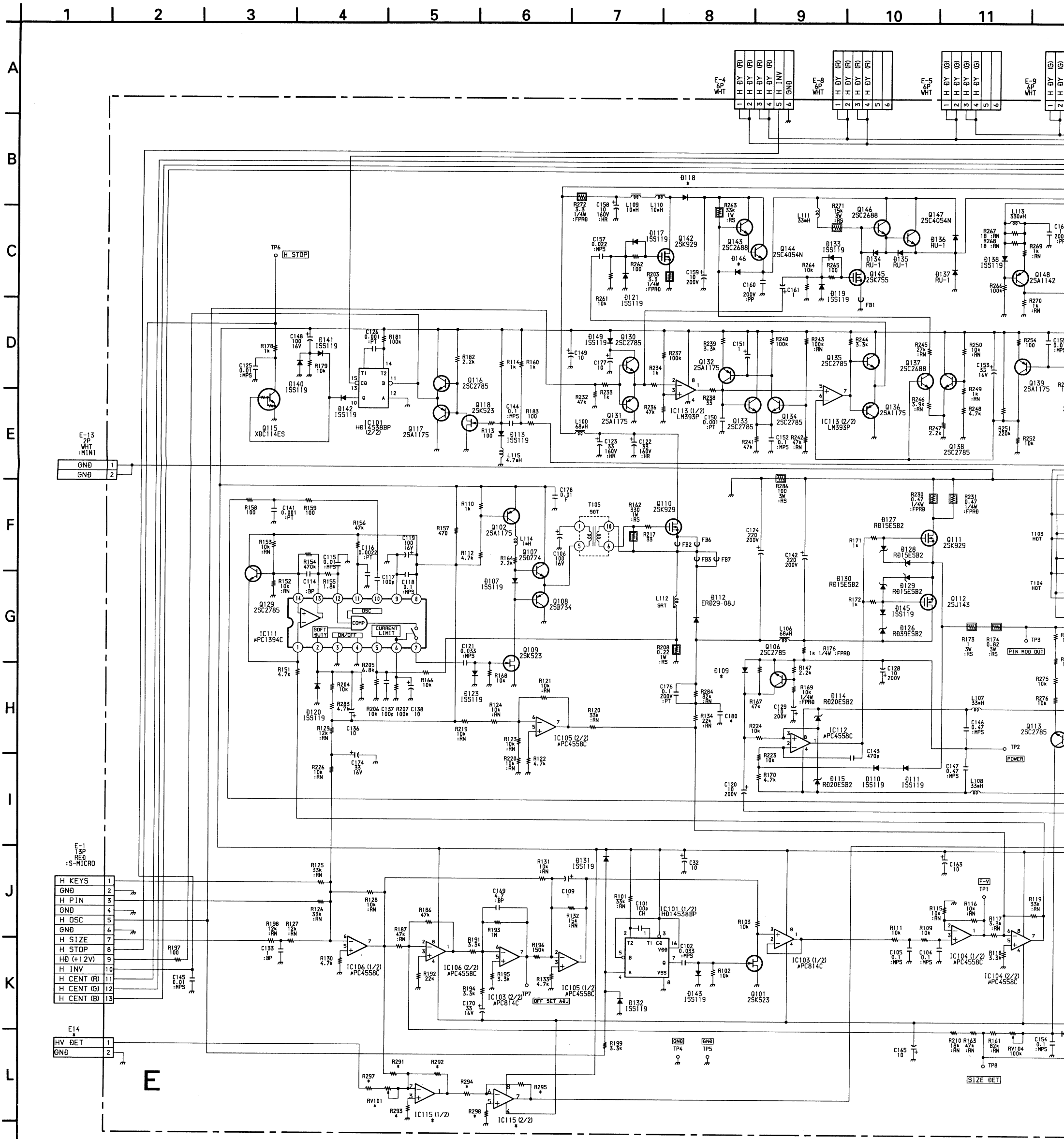
E BOARD

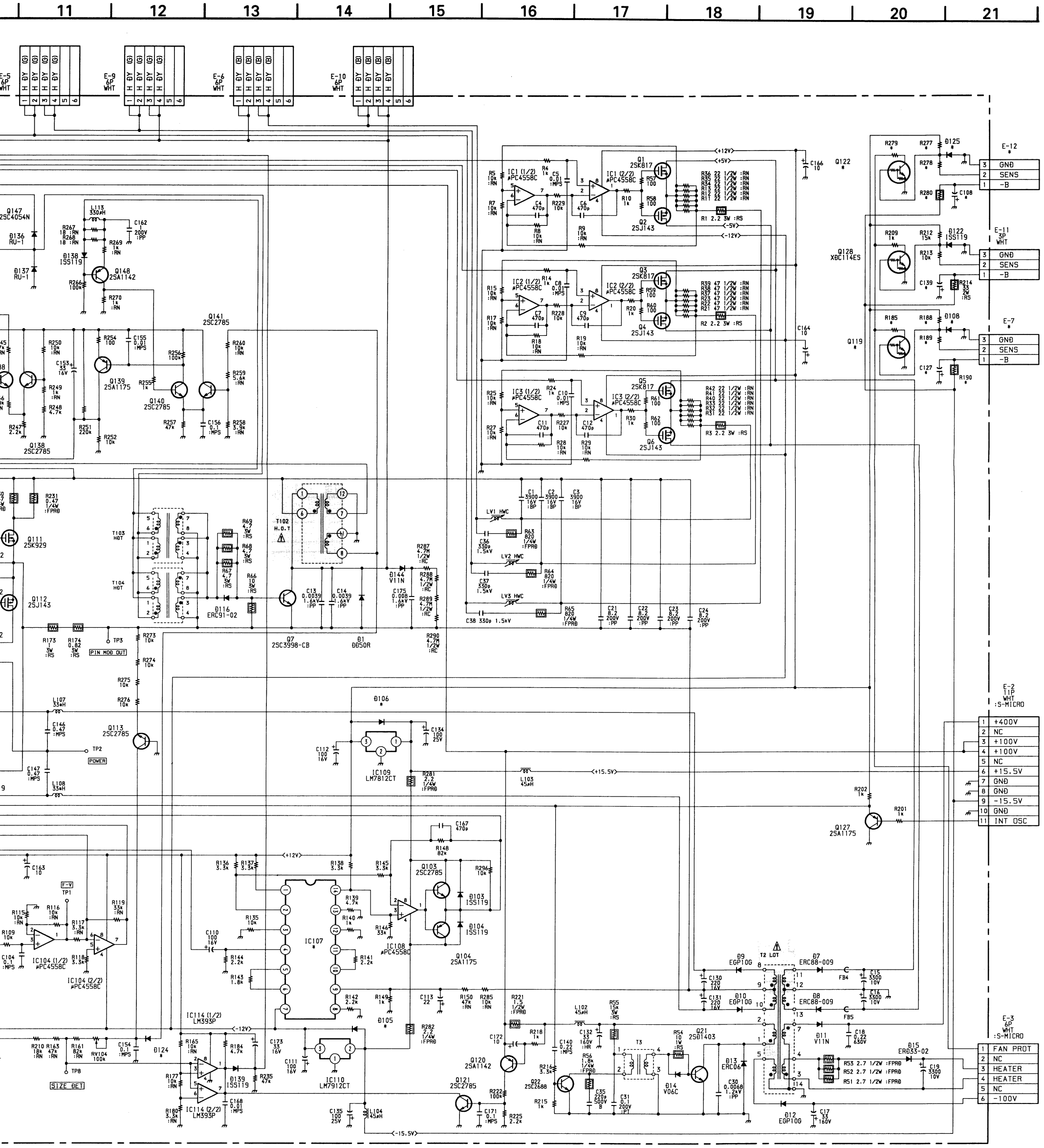
IC	
IC1	B-1
IC2	C-2
IC3	C-3
IC101	F-6
IC103	H-9
IC104	G-10
IC105	G-10
IC106	F-9
IC107	F-12
IC108	F-13
IC109	G-13
IC110	G-12
IC111	D-4
IC112	B-6
IC113	H-12
IC114	F-8

TRANSISTOR	
Q1	A-4
Q2	A-5
Q3	A-5
Q4	A-5
Q5	A-6
Q6	A-6
Q7	J-5
Q21	A-12
Q22	C-13
Q101	G-7
Q102	C-6
Q103	F-13
Q104	E-13
Q106	C-6
Q107	B-6
Q108	B-6
Q109	B-6
Q110	A-10
Q111	A-8
Q112	A-8
Q113	H-8
Q115	G-6
Q116	F-5
Q117	F-5
Q118	G-5
Q120	D-12
Q121	F-12
Q127	D-13
Q128	E-2
Q129	D-5
Q130	I-11
Q131	I-11
Q132	H-11
Q133	H-11
Q134	H-11
Q135	H-12
Q136	H-12
Q137	H-12
Q138	G-12
Q139	H-11
Q140	H-10
Q141	H-10
Q142	I-12
Q143	I-11
Q144	I-11
Q145	I-10
Q146	I-9
Q147	I-9
Q148	H-9

DIODE	
D1	J-4
D7	B-10
D8	A-10
D9	C-9
D10	C-9
D11	D-12
D12	C-11
D13	B-12
D14	A-13
D15	D-10
D103	F-13
D104	F-12
D105	G-12
D106	G-13
D107	B-6
D109	C-6
D110	B-7
D111	B-6
D112	C-8
D113	G-5
D114	B-7
D115	B-7
D116	I-6
D117	I-12
D118	I-12
D119	J-10
D120	D-4
D121	I-13
D122	E-2
D123	B-6
D124	G-8
D126	B-7
D127	B-8
D128	B-8
D129	B-8
D130	B-8
D131	G-7
D132	G-6
D133	I-10
D134	I-9
D135	J-9
D136	I-9
D137	J-8
D138	H-9
D139	F-8
D140	F-6
D141	G-6
D142	G-6
D143	F-8
D144	I-4
D145	B-7
D146	I-11
D149	I-11

VARIABLE RESISTOR	
RV101	F-10
RV104	H-8


E-4 6P WHT
E-8 6P WHT
E-5 6P WHT
E-9 6P WHT
H ÐY (R)
H ÐY (G)
H INV
GNÐ
TP6
H STOP
Ð118
Ð117 1SS119
Q142 2SK929
Q143 2SC2688
Q144 2SC4054N
Q146 2SC2688
Q147 2SC4054N
Ð136 RU-1
Ð137 RU-1
Ð134 RU-1
Ð135 RU-1
Q145 2SK755
FB1
Ð133 1SS119
Ð119 1SS119
Ð121 1SS119
L113 330µH
Q148 2SA1142
Ð138 1SS119
Ð149 1SS119
Q130 2SC2785
Q132 2SA1175
Q131 2SA1175
IC113 (1/2) LM393P
IC113 (2/2) LM393P
Q135 2SC2785
Q136 2SA1175
Q133 2SC2785
Q134 2SC2785
Q137 2SC2688
Q138 2SC2785
Q139 2SA1175
Q115 XÐC114ES
Ð140 1SS119
Ð141 1SS119
Ð142 1SS119
IC101 HÐ14538BP (2/2)
Q116 2SC2785
Q117 2SA1175
Q118 2SK523
Ð113 1SS119
L115 4.7mH
Ð140 1SS119
L100 68mH
E-13 2P WHT :MINI
GNÐ
E-1 13P RED :S-MICRO
H KEYS
H PIN
H OSC
H SIZE
H STOP
HÐ (+12V)
H INV
H CENT (R)
H CENT (G)
H CENT (B)
E14 HV ÐET
GNÐ
Q129 2SC2785
IC111 µPC1394C
OSC
COMP
SOFT ÐUTY
ON/OFF
CURRENT LIMIT
Q102 2SA1175
Q107 2SÐ774
Q108 2SB734
Ð107 1SS119
Q109 2SK523
Ð123 1SS119
Ð120 1SS119
T105 SÐT
Q110 2SK929
FB2
FB6
FB3
FB7
Ð112 ERÐ29-08J
L112 SRT
R208 0.22 1W :RS
Ð109
Q106 2SC2785
Ð114 RÐ20ESB2
Ð115 RÐ20ESB2
Ð110 1SS119
Ð111 1SS119
IC112 µPC4558C
IC105 (2/2) µPC4558C
Ð127 RÐ15ESB2
Ð128 RÐ15ESB2
Ð129 RÐ15ESB2
Ð130 RÐ15ESB2
Ð126 RÐ39ESB2
Q111 2SK929
Q112 2SJ143
Ð145 1SS119
T103 HÐT
T104 HÐT
TP3 PIN MOD OUT
TP2 POWER
Q113 2SC2785
L106 68µH
L107 33µH
L108 33µH
IC106 (1/2) µPC4558C
IC106 (2/2) µPC4558C
IC103 (2/2) µPC814C
TP7 OFF SET ADJ
IC105 (1/2) µPC4558C
IC101 (1/2) HÐ14538BP
IC103 (1/2) µPC814C
Q101 2SK523
Ð131 1SS119
Ð132 1SS119
Ð143 1SS119
TP4 GNÐ
TP5 GNÐ
F-V TP1
IC104 (1/2) µPC4558C
IC104 (2/2) µPC4558C
TP8 SIZE ÐET
RV104 100k
IC115 (1/2)
IC115 (2/2)
RV101
E



C139	1000 25V
C180	0.1 :MPS
Ð105	ERA22 -06TP5
Ð106	ERA22 -06TP5
Ð109	ERA22 -06TP5
Ð118	ERA22 -06TP5
Ð124	ERA22 -06TP5
Ð146	ERA22 -06TP5
E14	2P WHT :S-MICRO
IC107	MC1495BP
IC115	µPC4558C
R291	2.2k :RN
R292	2.2k :RN
R293	1k
R294	2.2k :RN
R295	2.2k :RN
R297	22k :RN
R298	1k
RV101	100k

IC30 (4/4) MC74HC126AF
IC30 (3/4) MC74HC126AF
IC31 (4/4) MC74HC14AF INVERTER
IC31 (3/4) MC74HC14AF INVERTER
IC38 (4/4) MC74F08M-T2 AND

IC14 CXK5863BM-35-T6 CHARACTER DISPLAY RAM

IC13 MBCG24123-4188 CHARACTER&TEST PATTERN GEN.

IC17 CXK3864-042M CHARACTER FONT ROM NO.3
IC16 CXK3864-041M CHARACTER FONT ROM NO.2
IC15 CXK3864-040M CHARACTER FONT ROM NO.1

IC18 MC10124L CHARACTER&TESTPATERN SIGNAL TTL→ECL TRANSLATION
IC19 MC10124L CHARACTER SIGNAL. TTL→ECL TRANSLATION.

IC10 MB670840PF ADDRESS ENCODE/PARALLEL INTERFACE/INTERRUPT CONTROL

IC21 SN745124N DUAL VOLTAGE CONTROLLED OSC.
IC36 SN745124N DUAL VOLTAGE CONTROLLED OSC

IC20 CX23065A PHASE COMPARATER
IC26 TC74HC132AF VD SHIFT FOR CHARACTER GEN
IC27 TC74HC107F VD SHIFT FOR CHARACTER GEN

IC37 TC74HC139AF VCO SELECT
IC34 MC74HC157AF H-SYNC SELECT

IC22 (2/2) μPC3936G2 WINDOW COMPARATER
IC22 (1/2) μPC3936G2 WINDOW COMPARATER
IC25 (1/2) μPC814G2 VOLTAGE COMPARATER
IC25 (2/2) μPC814G2 BUFFER

IC23 (1/4) MC74F00M-T2 NAND
IC23 (2/4) MC74F00M-T2 NAND
IC23 (3/4) MC74F00M-T2 NAND
IC23 (4/4) MC74F00M-T2 NAND

IC38 (1/4) MC74F08M-T2 AND
IC38 (2/4) MC74F08M-T2 AND
IC38 (3/4) MC74F08M-T2 AND

IC5 (6/6) MC74HC14AF-T2 INVERTER
IC5 (5/6) MC74HC14AF-T2 INVERTER

IC24 (1/2) MC34051MEL RS422 LINE DRIVER/RECIVER
IC24 (2/2) MC34051MEL RS422 LINE DRIVER/RECIVER

Q10 2SC2712 VCO SELECT RESET
Q6 2SC2712 BUFFER
Q8 2SC2712 BUFFER
Q9 2SA1162 BUFFER

D5 1S2835 OSC KILL
D8 1S2837 DIODE OR SYNC SEL
D7 1S2837 PULSE RECT.

Diode OR for SYNC Sel

X4 14.32MHz

CN52 96P

10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21

IC12 MB671469PF FH/FV DETECT

IC11 MB654842UPF SYNC CONTROL&CLAMP PULSE GEN.

IC33 RH5VA43AA CPU&SYSTEM RESET

IC5 (1/6) MC74HC14AF-T2 INVERTER

IC5 (2/6) MC74HC14AF-T2 INVERTER

D9 1S2835 DIODE AND FOR RESET

IC1 HD64180RIP8 CPU

IC5 (3/6) MC74HC14AF-T2 INVERTER

X1 12.288MHz

IC39 * REGI. MEMORY PROTECT

IC2 M27C512-15F1 PROGRAM ROM

IC29 TC74HC123AF V-SYNC DETECT

IC3 CXK5864CM-10LL RAM

IC6 TC74HC123AF WAIT CONTROL&REFORM. H-SYNC PULSE

IC4 μPD28C64ACZ-20 EE PROM

EE PROM.

IC9 MB8855-1314N SIRCS DECODE

IC31 (1/4) MC74HC14AF INVERTER

IC30 (1/4) MC74HC126AF

IC31 (2/4) MC74HC14AF INVERTER

IC30 (2/4) MC74HC126AF CLAMP PULSE SELECT

IC28 (1/4) MC74HC00AF ADDRESS ENCODE

IC28 (2/4) MC74HC00AF ADDRESS ENCODE

IC28 (3/4) MC74HC00AF ADDRESS ENCODE

IC28 (4/4) MC74HC00AF ADDRESS ENCODE

IC32 MC74HC541AF IN-POUT

Q5 2SC2712 SIRCS IC RESET

Q4 2SA1162 POWER DOWN DETECT

Q3 2SA1162 POWER CONTROL DRIVE

Q7 2SC2712 LED DRIVER

IC7 MC74HC541AF DATA BUS BUFFER

IC8 MC74HC541AF ADDRESS BUS BUFFER

D10 152835 COUNTERCURRENT PROTECT

IC35 LM2940CT-5.0 VOLTAGE REGULATOR

D2 V19EF1 VOLTAGE DROP DIODE

IC39	#
Q11	#
R66	47k :CHIP
R144	0 :CHIP
R160	#
R205	0 :CHIP

Y [CPU MEMORY]

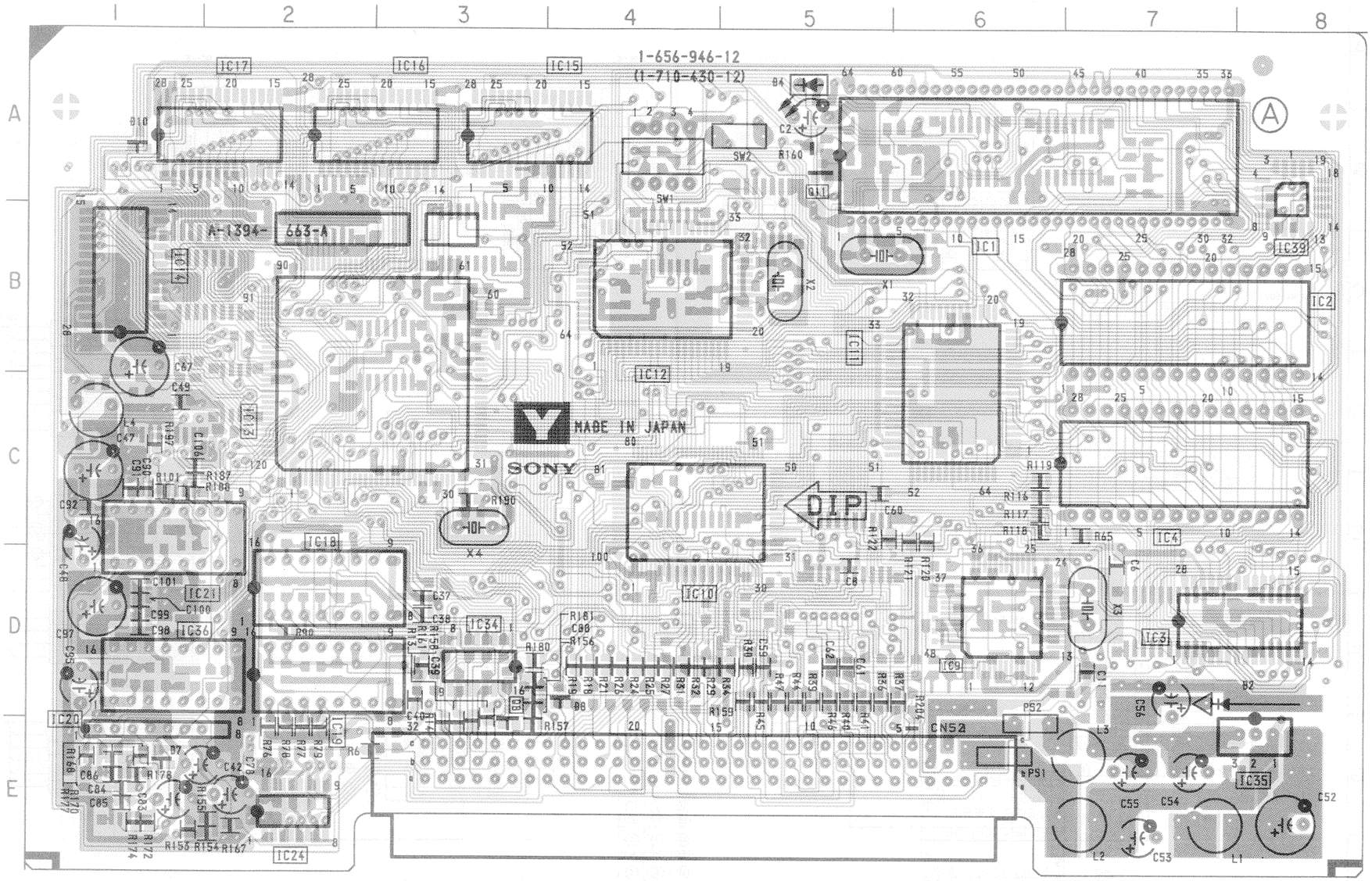
– Y BOARD – <Component Side>

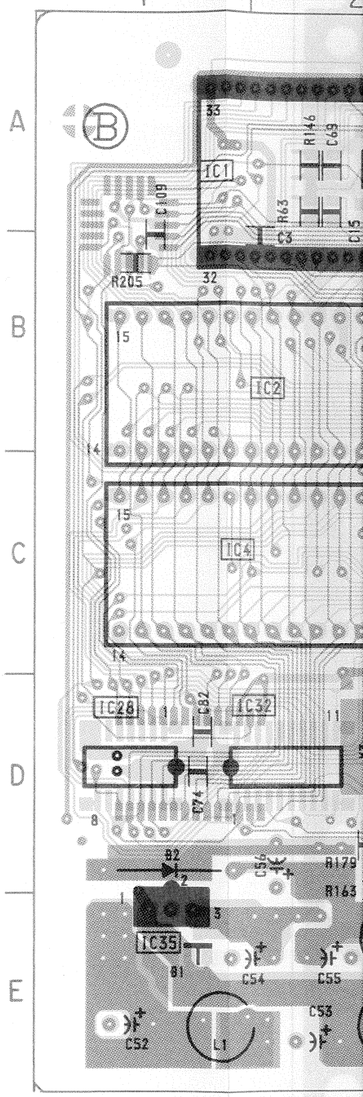
Y BOARD (COMPONENT SIDE)

IC	
IC1	A-6
IC2	B-7
IC3	D-8
IC4	C-8
IC9	D-6
IC10	C-4
IC11	C-6
IC12	B-4
IC13	C-2
IC14	B-1
IC15	A-3
IC16	A-2
IC17	A-2
IC18	D-2
IC19	D-2
IC20	E-1
IC21	D-1
IC24	E-2
IC34	D-3
IC35	E-8
IC36	D-1

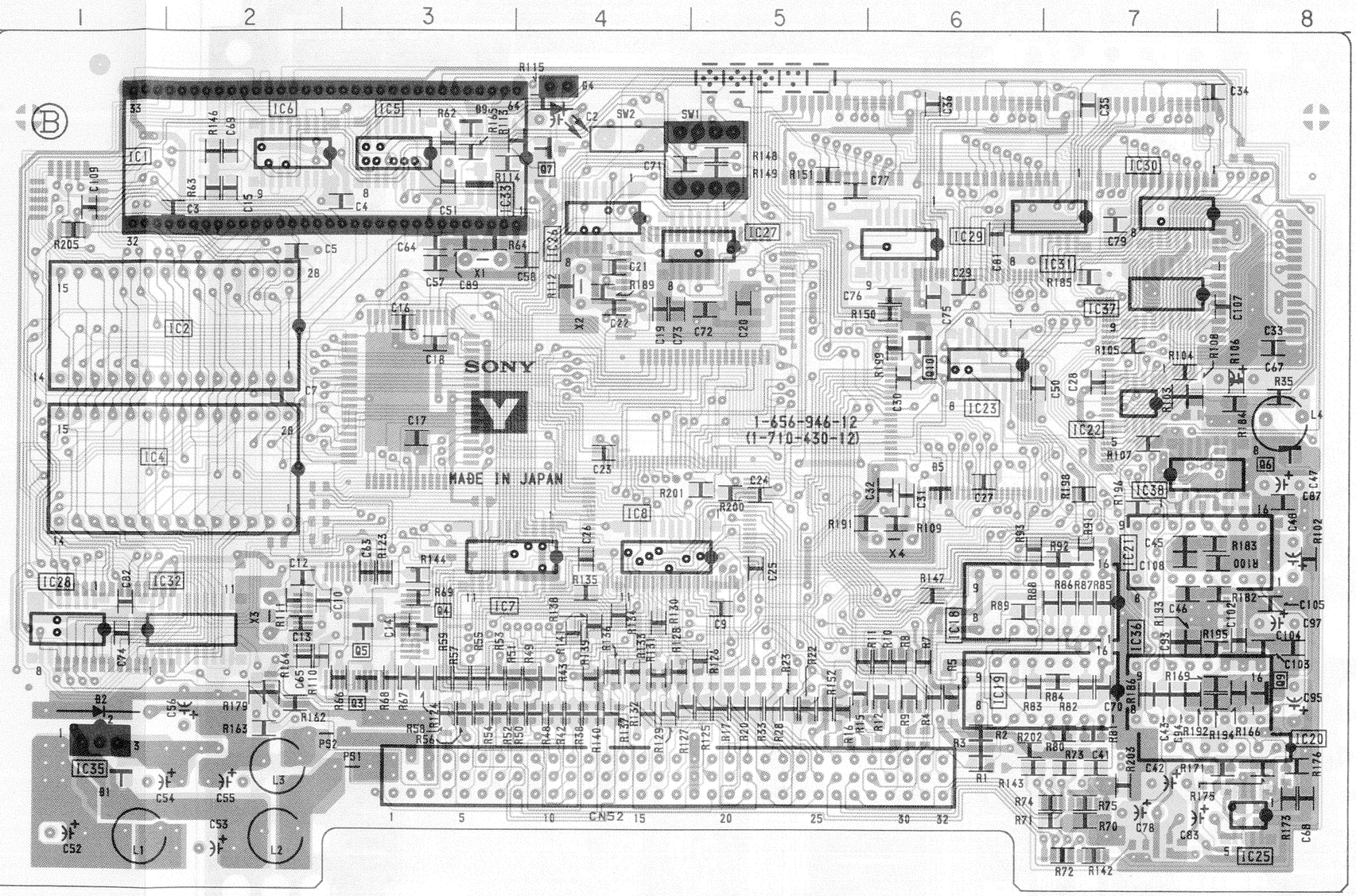
TRANSISTOR	
Q8	D-3

DIODE	
D2	D-8
D4	A-5
D7	E-1
D8	D-4





<Conductor Side>



Y BOARD
(CONDUCTOR SIDE)

IC	
IC1	A-2
IC2	B-2
IC4	C-2
IC5	A-3
IC6	A-2
IC7	D-3
IC8	C-4
IC18	D-6
IC19	D-6
IC20	D-7
IC21	D-7
IC22	C-7
IC23	B-6
IC25	E-8
IC26	B-4
IC27	B-5
IC28	D-1
IC29	B-6
IC30	B-7
IC31	B-7
IC32	D-2
IC33	A-3
IC35	E-1
IC36	D-7
IC37	B-7
IC38	C-7

TRANSISTOR	
Q3	D-3
Q4	D-3
Q5	D-3
Q6	C-8
Q7	A-4
Q9	D-8
Q10	B-6

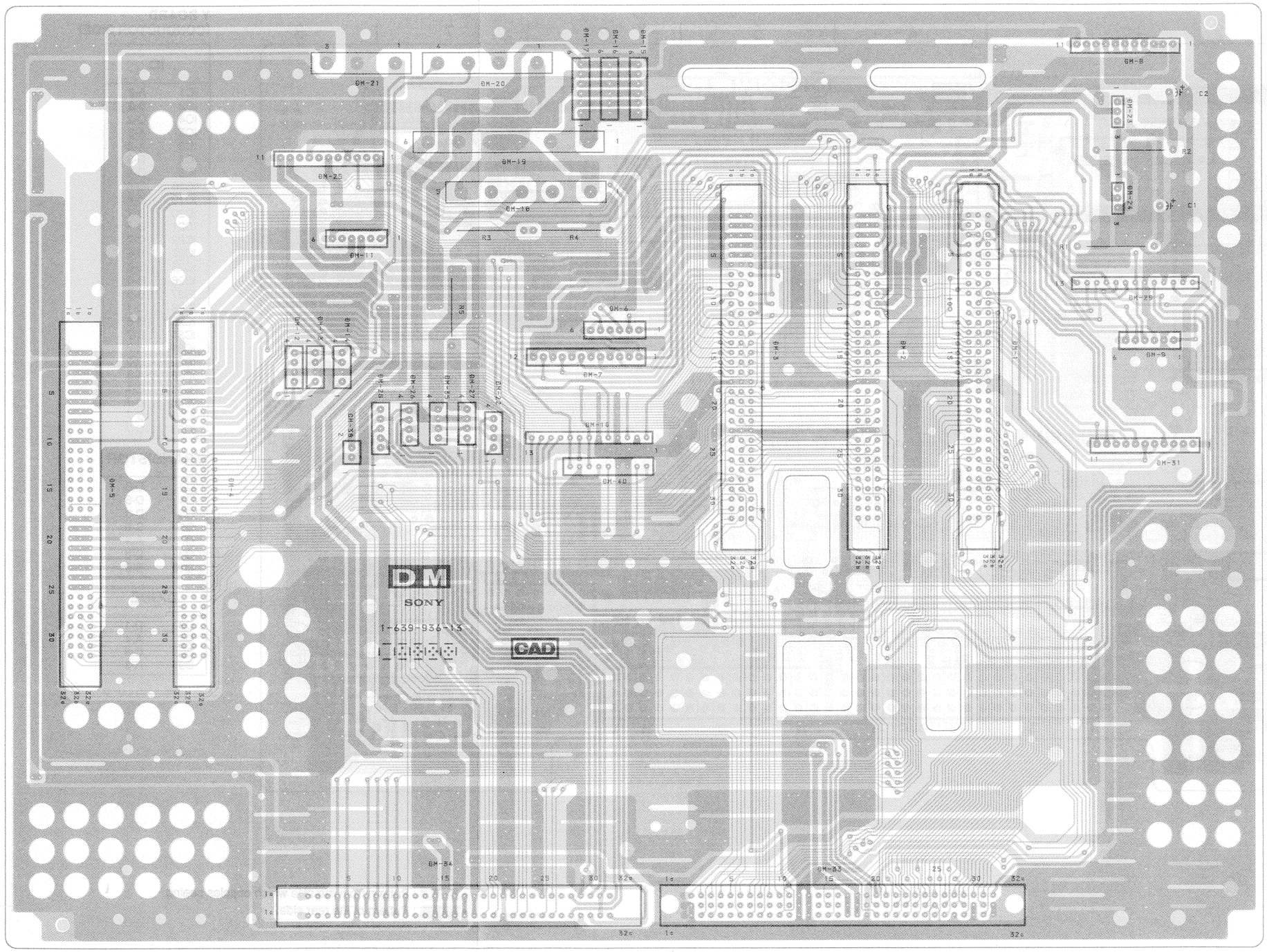
DIODE	
D2	D-1
D4	A-4
D5	C-6
D9	A-3

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

DM [DEFLECTION MOTHER BOARD]

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

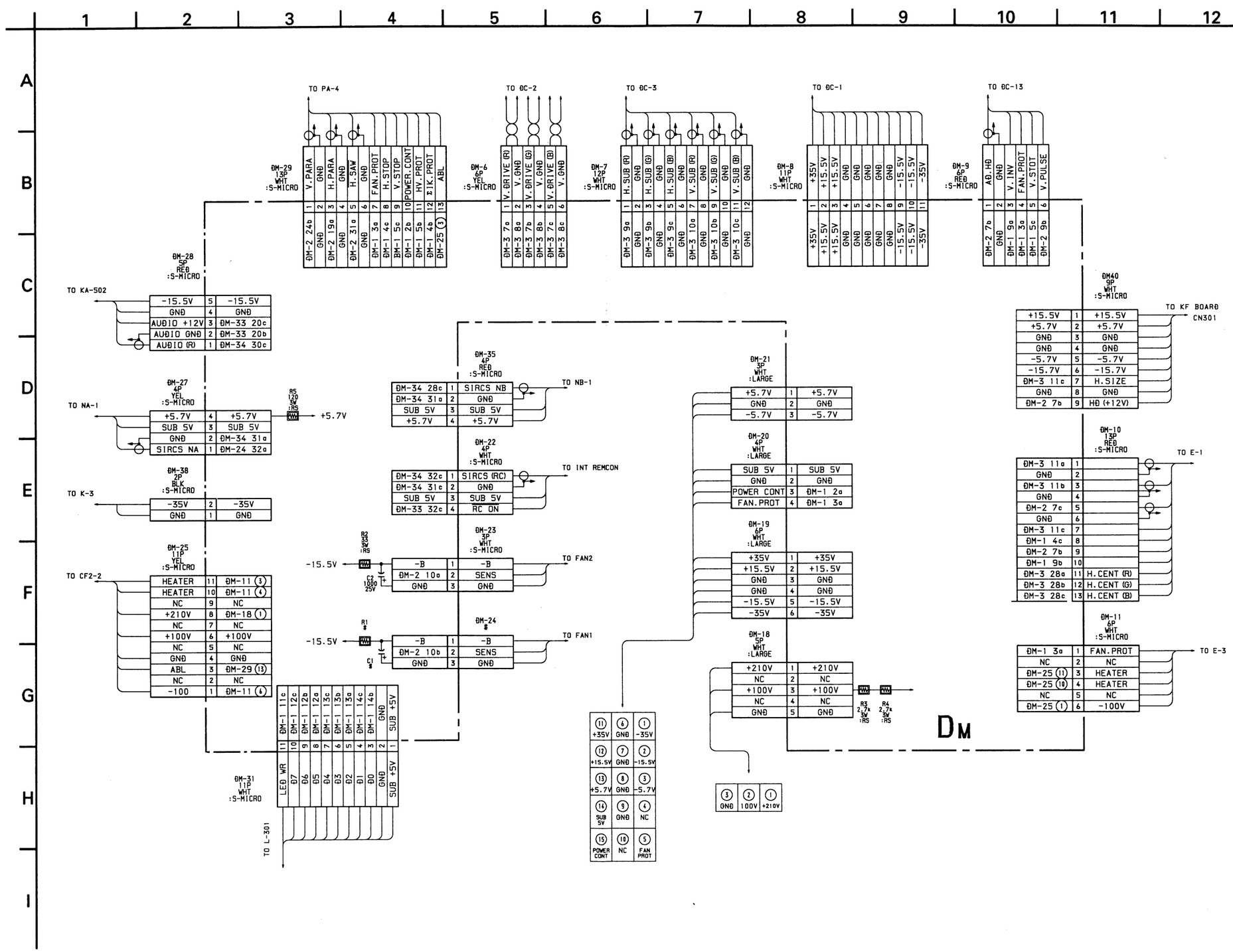
– DM BOARD –



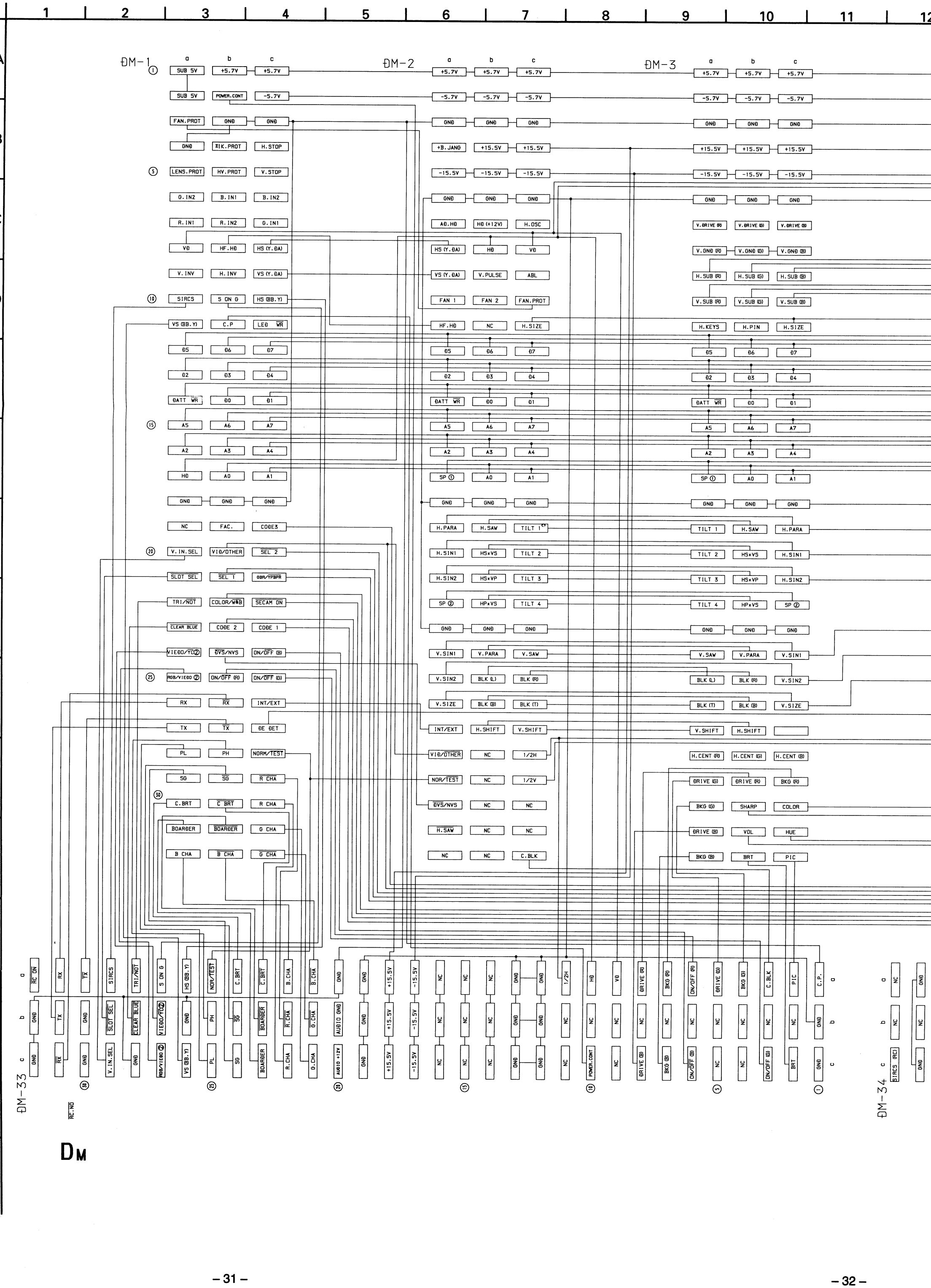
Schematic diagram

DM (1/2) board ➡

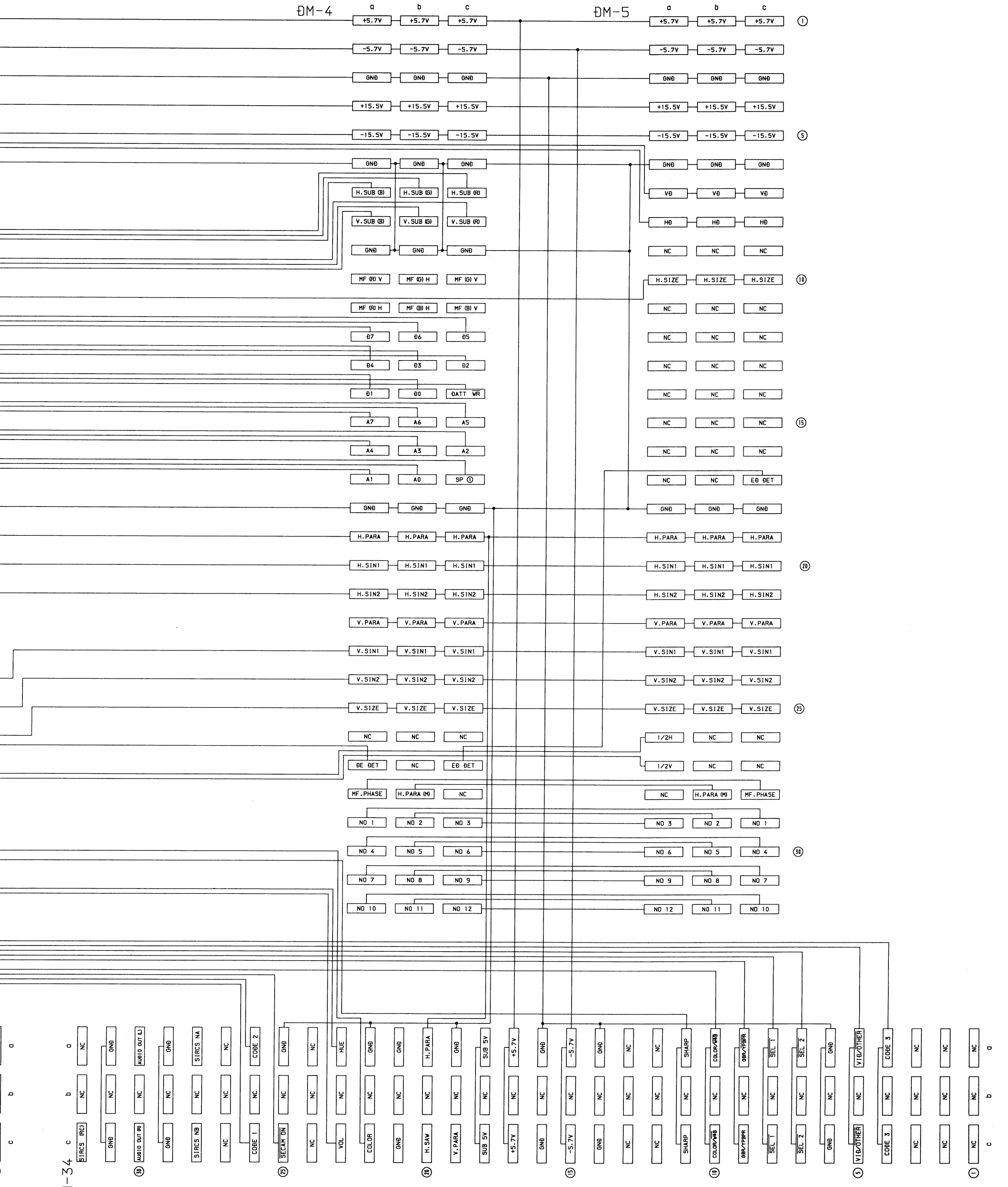
eeing.

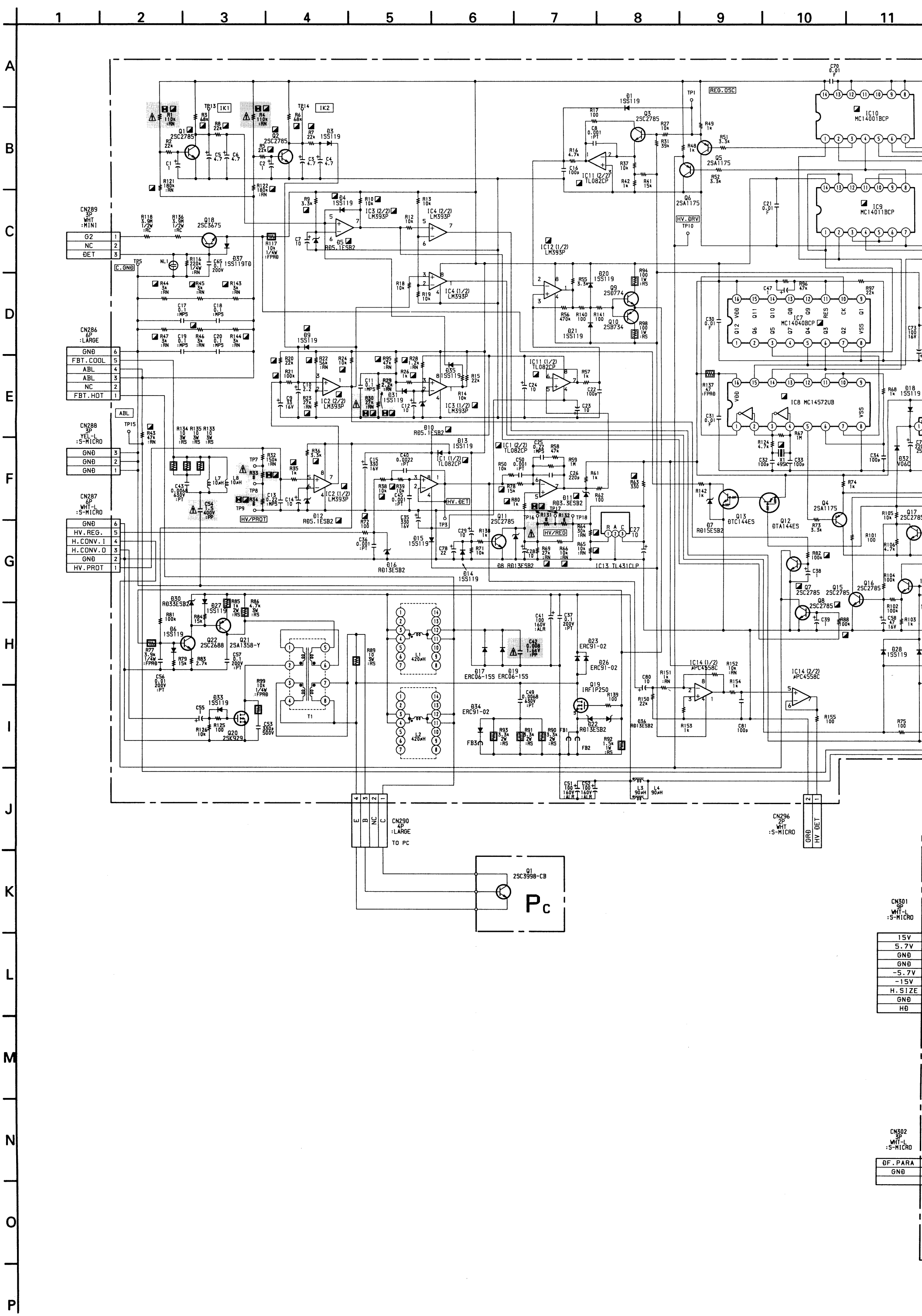


TO PA-4
TO ØC-2
TO ØC-3
TO ØC-1
TO ØC-13
ØM-29 13P WHT :S-MICRO
ØM-6 6P YEL :S-MICRO
ØM-7 12P WHT :S-MICRO
ØM-8 11P WHT :S-MICRO
ØM-9 6P REØ :S-MICRO
ØM-28 5P REØ :S-MICRO
TO KA-502
ØM-27 4P YEL :S-MICRO
TO NA-1
ØM-38 2P BLK :S-MICRO
TO K-3
ØM-25 11P YEL :S-MICRO
TO CF2-2
ØM-35 4P REØ :S-MICRO
TO NB-1
ØM-22 4P WHT :S-MICRO
TO INT REMCON
ØM-23 3P WHT :S-MICRO
TO FAN2
ØM-24 #
TO FAN1
ØM-31 11P WHT :S-MICRO
TO L-301
ØM-21 3P WHT :LARGE
ØM-20 4P WHT :LARGE
ØM-19 6P WHT :LARGE
ØM-18 5P WHT :LARGE
ØM40 9P WHT :S-MICRO
TO KF BOARØ CN301
ØM-10 13P REØ :S-MICRO
TO E-1
ØM-11 6P WHT :S-MICRO
TO E-3
DM


ĐM-1
ĐM-2
ĐM-3
ĐM-33
ĐM-34
SUB 5V
POWER.CONT
FAN.PROT
GNĐ
H.STOP
LENS.PROT
HV.PROT
V.STOP
G.IN2
B.IN1
B.IN2
R.IN1
R.IN2
G.IN1
VĐ
HF.HĐ
HS (Y.ĐA)
V.INV
H.INV
VS (Y.ĐA)
SIRCS
S ON G
HS (ĐB.Y)
VS (ĐB.Y)
C.P
LEĐ WR
Đ5
Đ6
Đ7
Đ2
Đ3
Đ4
ĐATT WR
Đ0
Đ1
A5
A6
A7
A2
A3
A4
HĐ
A0
A1
NC
FAC.
CODE3
V.IN.SEL
VIĐ/OTHER
SEL 2
SLOT SEL
SEL 1
ĐBR/YPBPR
TRI/NOT
COLOR/W&B
SECAM ON
CLEAR BLUE
CODE 2
CODE 1
VIEĐO/YC②
ĐVS/NVS
ON/OFF (B)
RGB/VIEĐO ②
ON/OFF (R)
ON/OFF (G)
RX
INT/EXT
TX
ĐE ĐET
PL
PH
NORM/TEST
SG
R CHA
C.BRT
BOARĐER
G CHA
B CHA
+B.JANG
+15.5V
-15.5V
AĐ.HĐ
HĐ (+12V)
H.OSC
VS (Y.ĐA)
V.PULSE
ABL
FAN 1
FAN 2
NC
1/2H
1/2V
H.PARA
H.SAW
TILT 1
H.SIN1
HSxVS
TILT 2
H.SIN2
HSxVP
TILT 3
SP ②
HPxVS
TILT 4
V.SIN1
V.PARA
V.SAW
V.SIN2
BLK (L)
BLK (R)
V.SIZE
BLK (B)
BLK (T)
H.SHIFT
V.SHIFT
H.SIZE
H.KEYS
H.PIN
V.ĐRIVE (R)
V.ĐRIVE (G)
V.ĐRIVE (B)
V.GNĐ (R)
V.GNĐ (G)
V.GNĐ (B)
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
H.CENT (R)
H.CENT (G)
H.CENT (B)
ĐRIVE (G)
ĐRIVE (R)
BKG (R)
BKG (G)
SHARP
COLOR
ĐRIVE (B)
VOL
HUE
BKG (B)
BRT
PIC
C.P.
C.BRT
B CHA
G CHA
C.BLK
AUDIO GNĐ
AUDIO +12V
+15.5V
-15.5V
POWER.CONT
ĐRIVE (R)
BKG (R)
ON/OFF (R)
ĐRIVE (G)
BKG (G)
ON/OFF (G)
ĐRIVE (B)
BKG (B)
ON/OFF (B)
RC ON
RC.NĐ
ĐIRCS (RC)

DM

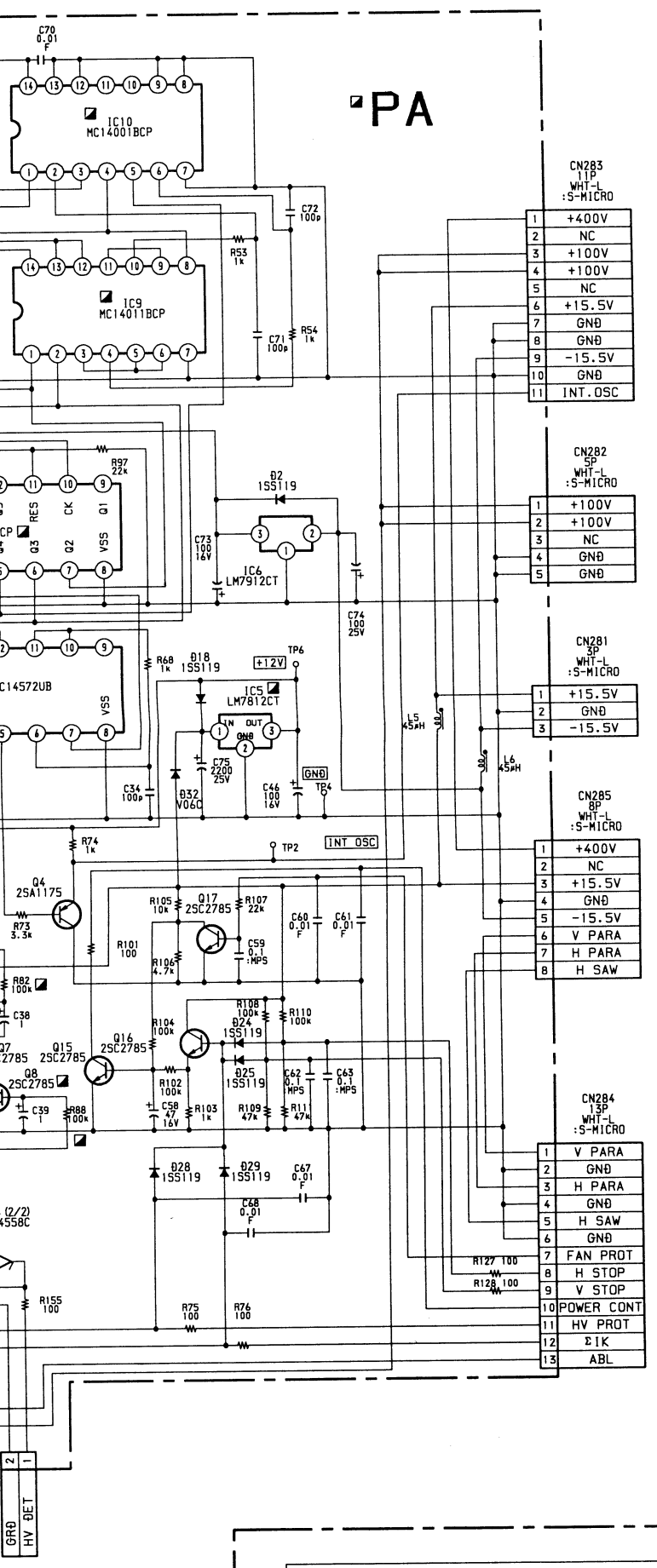

ĐM-4
a b c
+5.7V +5.7V +5.7V
-5.7V -5.7V -5.7V
GNĐ GNĐ GNĐ
+15.5V +15.5V +15.5V
-15.5V -15.5V -15.5V
GNĐ GNĐ GNĐ
H.SUB (B) H.SUB (G) H.SUB (R)
V.SUB (B) V.SUB (G) V.SUB (R)
GNĐ GNĐ GNĐ
MF (R) V MF (G) H MF (G) V
MF (R) H MF (B) H MF (B) V
Đ7 Đ6 Đ5
Đ4 Đ3 Đ2
Đ1 Đ0 ĐATT WR
A7 A6 A5
A4 A3 A2
A1 A0 SP ①
GNĐ GNĐ GNĐ
H.PARA H.PARA H.PARA
H.SIN1 H.SIN1 H.SIN1
H.SIN2 H.SIN2 H.SIN2
V.PARA V.PARA V.PARA
V.SIN1 V.SIN1 V.SIN1
V.SIN2 V.SIN2 V.SIN2
V.SIZE V.SIZE V.SIZE
NC NC NC
ĐE ĐET NC EĐ ĐET
MF.PHASE H.PARA (M) NC
NO 1 NO 2 NO 3
NO 4 NO 5 NO 6
NO 7 NO 8 NO 9
NO 10 NO 11 NO 12
ĐM-5
a b c
+5.7V +5.7V +5.7V ①
-5.7V -5.7V -5.7V
GNĐ GNĐ GNĐ
+15.5V +15.5V +15.5V
-15.5V -15.5V -15.5V ⑤
GNĐ GNĐ GNĐ
VĐ VĐ VĐ
HĐ HĐ HĐ
NC NC NC
H.SIZE H.SIZE H.SIZE ⑩
NC NC NC
NC NC NC
NC NC NC
NC NC NC
NC NC NC ⑮
NC NC NC
NC NC EĐ ĐET
GNĐ GNĐ GNĐ
H.PARA H.PARA H.PARA
H.SIN1 H.SIN1 H.SIN1 ⑳
H.SIN2 H.SIN2 H.SIN2
V.PARA V.PARA V.PARA
V.SIN1 V.SIN1 V.SIN1
V.SIN2 V.SIN2 V.SIN2
V.SIZE V.SIZE V.SIZE ㉕
1/2H NC NC
1/2V NC NC
NC H.PARA (M) MF.PHASE
NO 3 NO 2 NO 1
NO 6 NO 5 NO 4 ㉚
NO 9 NO 8 NO 7
NO 12 NO 11 NO 10
ĐM-34
c b a
SIRCS (RC) NC NC
GNĐ NC GNĐ
AUDIO OUT (L) NC AUDIO OUT (R) ㉚
GNĐ NC GNĐ
SIRCS NB NC SIRCS NA
NC NC NC
CODE 1 NC CODE 2
SECAM ON ㉕ GNĐ NC
NC NC NC
VOL NC HUE
COLOR NC GNĐ
GNĐ NC GNĐ
H.SAW ⑳ H.PARA NC
V.PARA NC GNĐ
SUB 5V NC SUB 5V
+5.7V NC +5.7V
GNĐ NC GNĐ
-5.7V ⑮ NC -5.7V
GNĐ NC GNĐ
NC NC NC
NC NC NC
SHARP NC SHARP
COLOR/RGB ⑩ NC COLOR/RGB
GBR/YPBPR NC GBR/YPBPR
SEL 1 NC SEL 1
SEL 2 NC SEL 2
GNĐ NC GNĐ
VIB/OTHER ⑤ NC VIB/OTHER
CODE 3 NC CODE 3
NC NC NC
NC NC NC
① NC NC NC
c b a

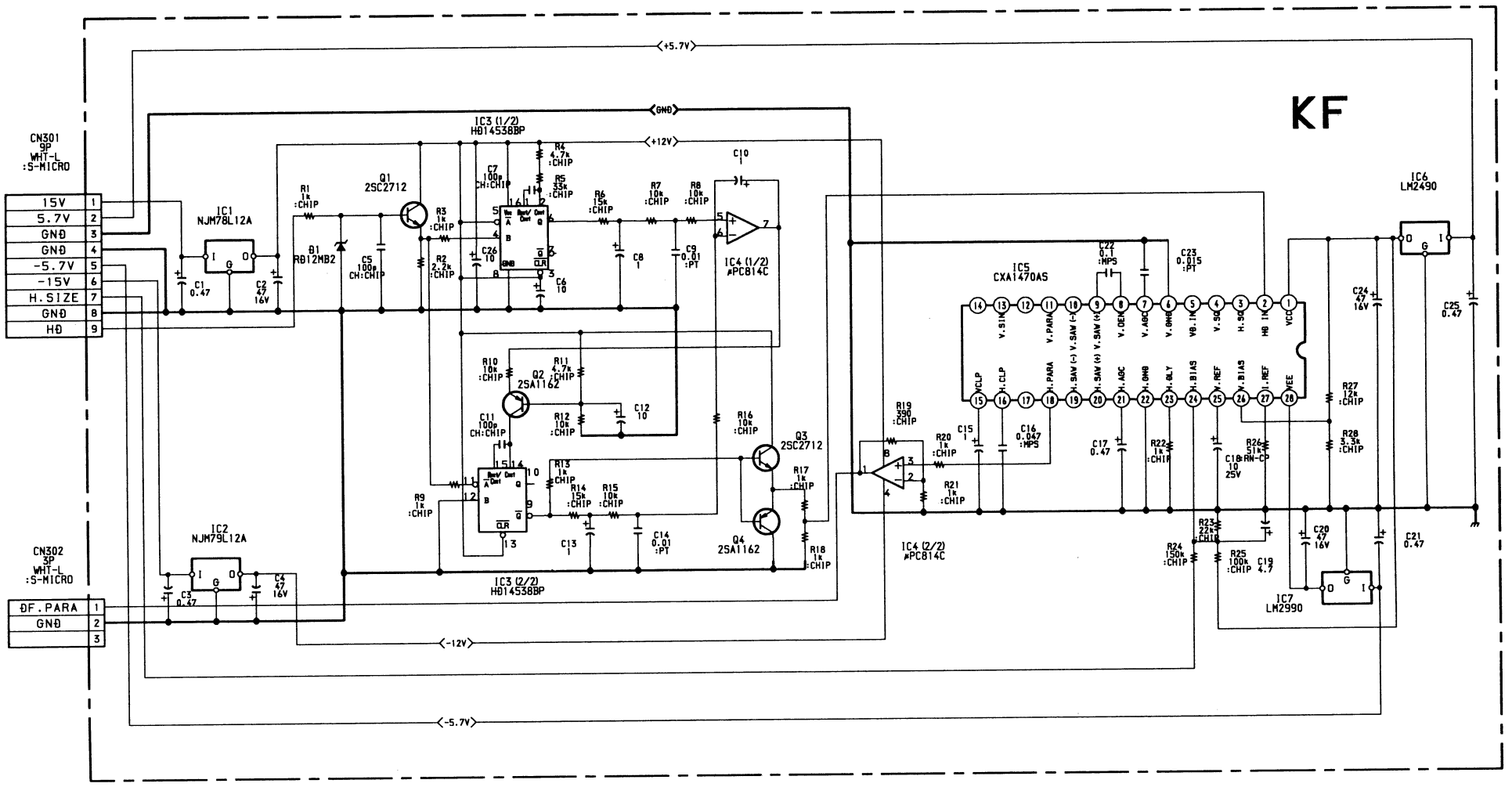

CN289 3P WHT :MINI
G2
NC
ĐET
CN286 6P :LARGE
GNĐ
FBT.COOL
ABL
ABL
NC
FBT.HOT
CN288 3P YEL-L :S-MICRO
GNĐ
GNĐ
GNĐ
CN287 6P WHT-L :S-MICRO
GNĐ
HV.REG.
H.CONV.I
H.CONV.O
GNĐ
HV.PROT
CN290 4P :LARGE TO PC
E
B
NC
C
CN296 2P WHT :S-MICRO
GRĐ
HV ĐET
CN301 9P WHT-L :S-MICRO
15V
5.7V
GNĐ
GNĐ
-5.7V
-15V
H.SIZE
GNĐ
HĐ
CN302 3P WHT-L :S-MICRO
ĐF.PARA
GNĐ
REG.OSC
HV.DRV
HV/PROT
HV/REG
HV.ĐET
C.GNĐ
ABL
IC1 (1/2) TL082CP
IC2 (2/2) LM393P
IC3 (2/2) LM393P
IC4 (1/2) LM393P
IC4 (2/2) LM393P
IC7 MC14040BCP
IC8 MC14572UB
IC9 MC14011BCP
IC10 MC14001BCP
IC11 (1/2) TL082CP
IC11 (2/2) TL082CP
IC12 (1/2) LM393P
IC13 TL431CLP
IC14 (1/2) μPC4558C
IC14 (2/2) μPC4558C
Q1 2SC3998-CB
Pc

PA

KC

KF


IC10 MC14001BCP
IC9 MC14011BCP
IC6 LM7912CT
IC5 LM7812CT
IC201 (1/2) μPC814C
IC202 (1/2) μPC814C
IC202 (2/2) μPC814C
CN283 11P WHT-L :S-MICRO
1 +400V
2 NC
3 +100V
4 +100V
5 NC
6 +15.5V
7 GND
8 GND
9 -15.5V
10 GND
11 INT.OSC
CN282 5P WHT-L :S-MICRO
1 +100V
2 +100V
3 NC
4 GND
5 GND
CN281 3P WHT-L :S-MICRO
1 +15.5V
2 GND
3 -15.5V
CN285 8P WHT-L :S-MICRO
1 +400V
2 NC
3 +15.5V
4 GND
5 -15.5V
6 V PARA
7 H PARA
8 H SAW
CN284 13P WHT-L :S-MICRO
1 V PARA
2 GND
3 H PARA
4 GND
5 H SAW
6 GND
7 FAN PROT
8 H STOP
9 V STOP
10 POWER CONT
11 HV PROT
12 ΣIK
13 ABL
CN295 3P WHT-L :S-MICRO
DF.PARA 1
GND 2
3
CN293 2P BLK-L :S-MICRO
-35V 2
GND 1
CN292 1P WHT :MINI
1 DF
CN294 3P YEL :S-MICRO
1 GND
2 GND
3 GND
CN291 8P WHT :S-MICRO
1 +400V
2 NC
3 +15.5V
4 GND
5 -15.5V
6 V PARA
7 H PARA
8 H SAW
GRD
HV DET
INT OSC
+12V
GND
Q205 2SD1210
Q206 2SB897
Q202 2SC3421
Q204 2SK929
Q203 2SK929
Q201 2SA1441
Q4 2SA1175
Q17 2SC2785
Q16 2SC2785
Q15 2SC2785
Q8 2SC2785
T210
D201 RD10ESB2
D202 RD10ESB2
D203 ERA22-06
D204 1SS119
D205 1SS119
D2 1SS119
D18 1SS119
D24 1SS119
D25 1SS119
D28 1SS119
D29 1SS119
D32 V06C
SG202
SG201

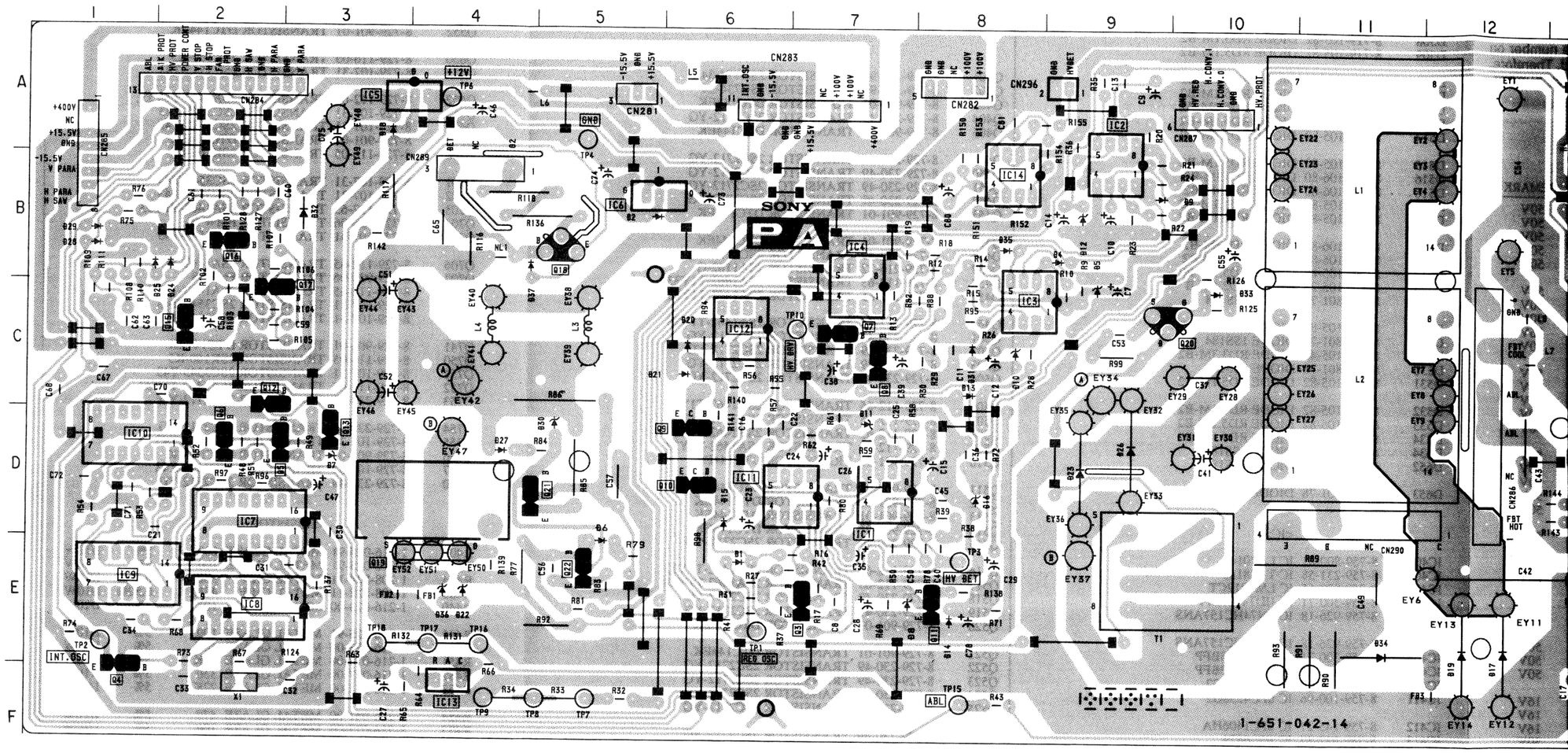

IC1 NJM78L12A
IC2 NJM79L12A
IC3 (1/2) HD14538BP
IC3 (2/2) HD14538BP
IC4 (1/2) μPC814C
IC4 (2/2) μPC814C
IC5 CXA1470AS
IC6 LM2490
IC7 LM2990
CN301 9P WHT-L :S-MICRO
15V 1
5.7V 2
GND 3
GND 4
-5.7V 5
-15V 6
H.SIZE 7
GND 8
HD 9
CN302 3P WHT-L :S-MICRO
DF.PARA 1
GND 2
3
+5.7V
+12V
-12V
-5.7V
GND
Q1 2SC2712
Q3 2SC2712
Q2 2SA1162
Q4 2SA1162
D1 RD12MB2

PA [HIGH VOLTAGE REG]

PA BOARD

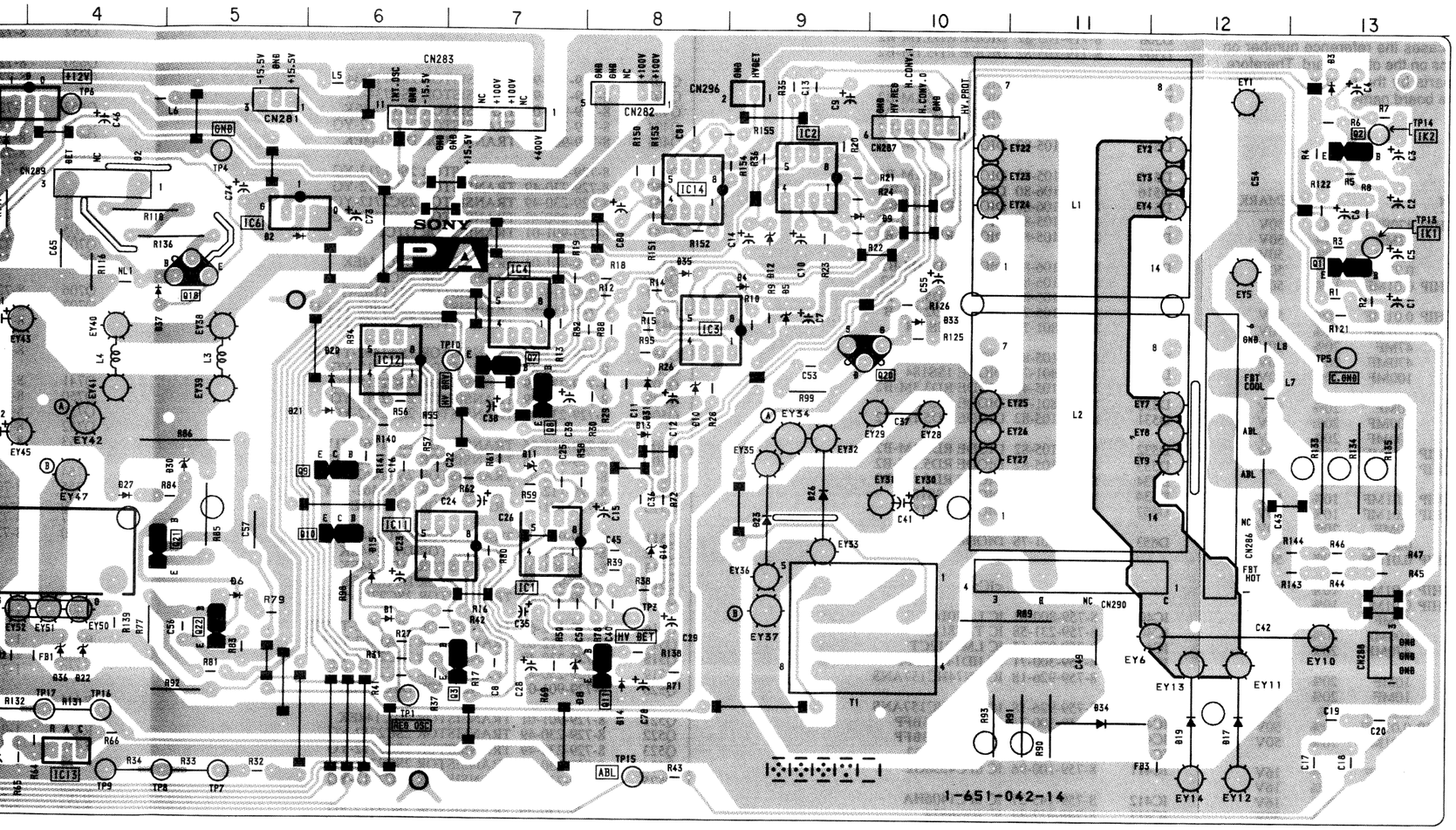
IC		DIODE	
IC1	D-7	D1	E-6
IC2	B-9	D2	B-5
IC3	C-8	D3	A-13
IC4	B-7	D4	B-9
IC5	A-3	D5	C-9
IC6	B-5	D6	E-5
IC7	D-2	D7	D-3
IC8	E-2	D8	E-7
IC9	E-1	D9	B-9
IC10	D-1	D10	C-8
IC11	D-7	D11	D-7
IC12	C-6	D12	B-9
IC13	F-4	D13	C-8
IC14	B-8	D14	E-8
TRANSISTOR		D15	D-6
Q1	B-13	D16	D-8
Q2	A-13	D17	E-12
Q3	E-7	D18	A-3
Q4	F-1	D19	E-12
Q5	D-2	D20	C-6
Q6	D-2	D21	C-6
Q7	C-7	D22	E-4
Q8	C-7	D23	D-9
Q9	D-6	D24	B-2
Q10	D-6	D25	B-2
Q11	E-8	D26	D-9
Q12	C-2	D27	D-4
Q13	D-3	D28	B-1
Q15	C-2	D29	B-1
Q16	B-2	D30	D-5
Q17	C-2	D31	C-8
Q18	B-5	D32	B-3
Q19	E-4	D33	C-10
Q20	C-10	D34	E-11
Q21	D-5	D35	B-8
Q22	E-5	D36	E-4
		D37	B-4

– PA BOARD –



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

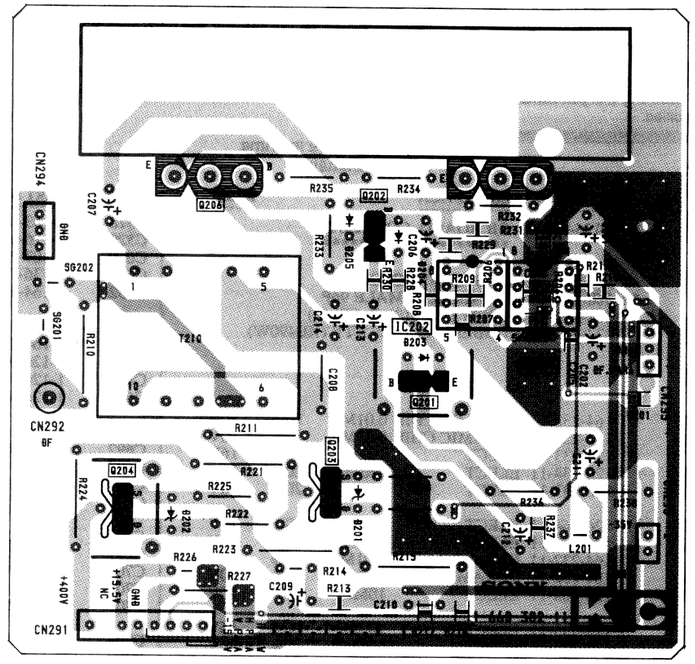
• : Pattern from the
• : Pattern of the re



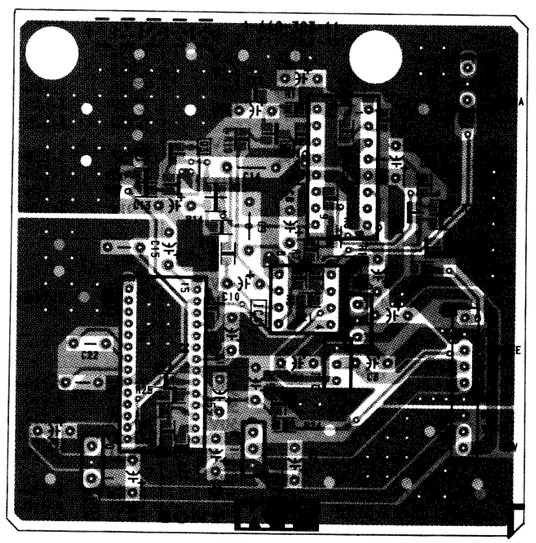
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

– KC BOARD –



– KF BOARD –



SECTION 3
ELECTRICAL PARTS LIST

BB

NOTE:

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF. NO.	PART NO.	DESCRIPTION				REMARK
	* A-1135-693-A	BB BOARD, COMPLETE				
		**********				
	1-564-595-11	PLUG, CONNECTOR 14P				
	* 1-568-984-11	CONNECTOR, MALE 96P				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
	7-322-065-19	RUBBER, SILICON RTV (KE490W)				
		<CAPACITOR>				
C402	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C404	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C405	1-126-933-11	ELECT	100MF	20%	16V	
C406	1-126-934-11	ELECT	220MF	20%	16V	
C407	1-126-933-11	ELECT	100MF	20%	16V	
C408	1-126-964-11	ELECT	10MF	20%	50V	
C409	1-126-933-11	ELECT	100MF	20%	16V	
C412	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C413	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C414	1-126-964-11	ELECT	10MF	20%	50V	
C415	1-126-933-11	ELECT	100MF	20%	16V	
C416	1-126-933-11	ELECT	100MF	20%	16V	
C417	1-126-934-11	ELECT	220MF	20%	16V	
C418	1-126-933-11	ELECT	100MF	20%	16V	
C419	1-126-933-11	ELECT	100MF	20%	16V	
C425	1-126-933-11	ELECT	100MF	20%	16V	
C450	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C451	1-126-935-11	ELECT	470MF	20%	16V	
C453	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C501	1-126-964-11	ELECT	10MF	20%	50V	
C502	1-126-964-11	ELECT	10MF	20%	50V	
C503	1-126-967-11	ELECT	47MF	20%	16V	
C504	1-126-967-11	ELECT	47MF	20%	16V	
C505	1-126-963-11	ELECT	4.7MF	20%	50V	
C506	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C507	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C508	1-126-967-11	ELECT	47MF	20%	16V	
C509	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C510	1-126-967-11	ELECT	47MF	20%	16V	
C511	1-126-935-11	ELECT	470MF	20%	16V	
C512	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C513	1-126-967-11	ELECT	47MF	20%	16V	
C514	1-126-963-11	ELECT	4.7MF	20%	50V	
C515	1-126-963-11	ELECT	4.7MF	20%	50V	
C516	1-126-963-11	ELECT	4.7MF	20%	50V	
C518	1-126-964-11	ELECT	10MF	20%	50V	
C519	1-126-964-11	ELECT	10MF	20%	50V	
C520	1-124-903-11	ELECT	1MF	20%	50V	
C521	1-126-964-11	ELECT	10MF	20%	50V	
C522	1-126-964-11	ELECT	10MF	20%	50V	
C523	1-163-833-00	CERAMIC CHIP	0.068MF		25V	
C524	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C525	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C526	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C527	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	

REF. NO.	PART NO.	DESCRIPTION				REMARK
C528	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C529	1-126-965-11	ELECT	22MF	20%	50V	
C650	1-107-714-11	ELECT	10MF	20%	50V	
C651	1-136-169-00	FILM	0.22MF	5%	50V	
C652	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C653	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C654	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C655	1-126-967-11	ELECT	47MF	20%	50V	
C657	1-126-935-11	ELECT	470MF	20%	16V	
C658	1-126-968-11	ELECT	100MF	20%	50V	
C660	1-126-964-11	ELECT	10MF	20%	50V	
C692	1-126-968-11	ELECT	100MF	20%	50V	
C693	1-126-968-11	ELECT	100MF	20%	50V	
C694	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C695	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C696	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C697	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C700	1-107-714-11	ELECT	10MF	20%	50V	
C701	1-136-169-00	FILM	0.22MF	5%	50V	
C702	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C703	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C707	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C708	1-126-967-11	ELECT	47MF	20%	50V	
C710	1-126-968-11	ELECT	100MF	20%	50V	
C711	1-126-935-11	ELECT	470MF	20%	16V	
C713	1-126-964-11	ELECT	10MF	20%	50V	
C750	1-107-714-11	ELECT	10MF	20%	50V	
C751	1-136-169-00	FILM	0.22MF	5%	50V	
C752	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C753	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C754	1-126-933-11	ELECT	100MF	20%	16V	
C755	1-126-933-11	ELECT	100MF	20%	16V	
C756	1-126-933-11	ELECT	100MF	20%	16V	
C757	1-126-967-11	ELECT	47MF	20%	50V	
C759	1-126-968-11	ELECT	100MF	20%	50V	
C760	1-126-935-11	ELECT	470MF	20%	16V	
C762	1-126-965-11	ELECT	22MF	20%	50V	
C763	1-126-964-11	ELECT	10MF	20%	50V	
C914	1-126-933-11	ELECT	100MF	20%	16V	
		<CONNECTOR>				
CN90	1-564-506-11	PLUG, CONNECTOR 3P				
		<DIODE>				
D401	8-719-900-95	DIODE V09G				
D402	8-719-900-95	DIODE V09G				
D440	8-719-801-78	DIODE 1SS184				
D450	8-719-801-78	DIODE 1SS184				
D451	8-719-801-78	DIODE 1SS184				
D452	8-719-105-28	DIODE RD2.4M-B				
D501	8-719-801-78	DIODE 1SS184				
D502	8-719-801-78	DIODE 1SS184				
D503	8-719-106-80	DIODE RD13M-B2				

REF. NO.	PART NO.	DESCRIPTION	REMARK
D504	8-719-105-82	DIODE RD5.1M-B2	
D505	8-719-801-78	DIODE 1SS184	
D506	8-719-105-82	DIODE RD5.1M-B2	
D507	8-719-105-82	DIODE RD5.1M-B2	
D508	8-719-105-82	DIODE RD5.1M-B2	
D509	8-719-105-82	DIODE RD5.1M-B2	
D510	8-719-105-82	DIODE RD5.1M-B2	
D511	8-719-105-82	DIODE RD5.1M-B2	
D512	8-719-105-82	DIODE RD5.1M-B2	
D513	8-719-105-82	DIODE RD5.1M-B2	
D514	8-719-105-82	DIODE RD5.1M-B2	
D515	8-719-105-82	DIODE RD5.1M-B2	
D516	8-719-106-80	DIODE RD13M-B2	
D518	8-719-106-80	DIODE RD13M-B2	
D520	8-719-105-82	DIODE RD5.1M-B2	
D521	8-719-105-82	DIODE RD5.1M-B2	
D522	8-719-106-80	DIODE RD13M-B2	
D523	8-719-106-80	DIODE RD13M-B2	
D524	8-719-105-82	DIODE RD5.1M-B2	
D525	8-719-105-28	DIODE RD2.4M-B	
D526	8-719-801-78	DIODE 1SS184	
D527	8-719-105-82	DIODE RD5.1M-B2	
D528	8-719-801-78	DIODE 1SS184	
D529	8-719-105-46	DIODE RD3.3M-B2	
D530	8-719-801-78	DIODE 1SS184	
D531	8-719-105-82	DIODE RD5.1M-B2	
D532	8-719-105-82	DIODE RD5.1M-B2	
D533	8-719-105-82	DIODE RD5.1M-B2	
D534	8-719-105-82	DIODE RD5.1M-B2	
D634	8-719-801-78	DIODE 1SS184	
D652	8-719-801-78	DIODE 1SS184	
D653	8-719-801-78	DIODE 1SS184	
		<IC>	
IC401	8-759-800-81	IC LA7016	
IC402	8-759-231-58	IC TA7812S	
IC403	8-759-929-65	IC LM7912CT	
IC404	8-759-300-71	IC HD14053BFP	
IC405	8-759-926-18	IC SN74HC157ANS	
IC407	8-759-926-18	IC SN74HC157ANS	
IC408	8-759-300-71	IC HD14053BFP	
IC409	8-759-300-71	IC HD14053BFP	
IC410	8-759-100-96	IC uPC4558G2	
IC411	8-759-100-96	IC uPC4558G2	
IC412	8-759-145-27	IC uPC1406HA	
IC413	8-749-922-84	IC BX-6474	
IC414	8-749-922-83	IC BX-6473	
IC415	8-749-922-83	IC BX-6473	
IC416	8-749-922-83	IC BX-6473	
IC417	8-749-010-54	IC BX7913A	
IC418	8-749-010-58	IC BX6589	
IC419	8-749-010-58	IC BX6589	
IC420	8-749-010-58	IC BX6589	
IC422	8-759-100-93	IC uPC393G2	
IC423	8-759-925-85	IC SN74HC32ANS	
IC424	8-759-100-93	IC uPC393G2	
		<JACK>	
J101	1-566-980-21	CONNECTOR, ROUND TYPE 4P	
		<COIL>	
L401	1-459-155-00	COIL (WITH CORE) 45UH	
L402	1-459-155-00	COIL (WITH CORE) 45UH	
L403	1-459-155-00	COIL (WITH CORE) 45UH	
L404	1-459-155-00	COIL (WITH CORE) 45UH	

BB

REF. NO.	PART NO.	DESCRIPTION	REMARK
L405	1-410-671-31	INDUCTOR 47UH	
L605	1-410-482-31	INDUCTOR 100UH	
L651	1-410-482-31	INDUCTOR 100UH	
		<TRANSISTOR>	
Q401	8-729-140-96	TRANSISTOR 2SD774-34	
Q402	8-729-140-97	TRANSISTOR 2SB734-34	
Q403	8-729-901-01	TRANSISTOR DTC144EK	
Q404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q405	8-729-901-01	TRANSISTOR DTC144EK	
Q440	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q450	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q451	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q452	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q453	8-729-901-01	TRANSISTOR DTC144EK	
Q454	8-729-901-01	TRANSISTOR DTC144EK	
Q456	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q457	8-729-216-22	TRANSISTOR 2SA1162-G	
Q458	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q459	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q460	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q501	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q502	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q503	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q504	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q506	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q507	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q508	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q509	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q510	8-729-901-01	TRANSISTOR DTC144EK	
Q511	8-729-901-01	TRANSISTOR DTC144EK	
Q512	8-729-901-01	TRANSISTOR DTC144EK	
Q513	8-729-901-01	TRANSISTOR DTC144EK	
Q514	8-729-901-01	TRANSISTOR DTC144EK	
Q515	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q516	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q517	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q518	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q519	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q520	8-729-901-01	TRANSISTOR DTC144EK	
Q521	8-729-901-01	TRANSISTOR DTC144EK	
Q522	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q523	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q524	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q525	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q526	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q527	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q528	8-729-901-01	TRANSISTOR DTC144EK	
Q529	8-729-901-01	TRANSISTOR DTC144EK	
Q530	8-729-901-01	TRANSISTOR DTC144EK	
Q531	8-729-901-01	TRANSISTOR DTC144EK	
Q532	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q533	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q534	8-729-320-62	TRANSISTOR 2SD789-34	
Q535	8-729-901-01	TRANSISTOR DTC144EK	
Q536	8-729-901-01	TRANSISTOR DTC144EK	
Q537	8-729-901-01	TRANSISTOR DTC144EK	
Q538	8-729-901-01	TRANSISTOR DTC144EK	
Q539	8-729-901-01	TRANSISTOR DTC144EK	
Q540	8-729-901-01	TRANSISTOR DTC144EK	
Q541	8-729-901-01	TRANSISTOR DTC144EK	
Q542	8-729-901-01	TRANSISTOR DTC144EK	
Q543	8-729-901-01	TRANSISTOR DTC144EK	
Q544	8-729-901-01	TRANSISTOR DTC144EK	
Q545	8-729-216-22	TRANSISTOR 2SA1162-G	
Q546	8-729-901-01	TRANSISTOR DTC144EK	
Q547	8-729-216-22	TRANSISTOR 2SA1162-G	

BB

REF. NO.	PART NO.
Q548	8-729-9
Q549	8-729-9
Q550	8-729-9
Q551	8-729-9
Q552	8-729-9
Q553	8-729-2
Q650	8-729-1
Q651	8-729-1
Q652	8-729-1
Q653	8-729-1
Q654	8-729-1
Q656	8-729-9
Q700	8-729-1
Q701	8-729-1
Q702	8-729-1
Q703	8-729-1
Q704	8-729-9
Q705	8-729-1
Q706	8-729-1
Q707	8-729-9
Q708	8-729-1
Q709	8-729-1
Q710	8-729-1
Q741	8-729-9
Q750	8-729-1
Q751	8-729-1
Q752	8-729-1
Q753	8-729-2
Q754	8-729-2
Q755	8-729-1
Q756	8-729-9
Q757	8-729-1
Q800	8-729-2
R401	1-216-0
R403	1-216-0
R404	1-208-8
R405	1-208-8
R440	1-216-0
R441	1-216-0
R450	1-216-0
R451	1-216-0
R452	1-216-0
R453	1-216-0
R454	1-216-0
R455	1-216-0
R456	1-216-0
R459	1-216-0
R460	1-216-0
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R464	1-216-0
R466	1-216-0
R467	1-216-0
R468	1-216-0
R469	1-216-0
R470	1-216-0
R471	1-216-0
R472	1-216-0
R473	1-216-0
R474	1-216-0
R501	1-216-6
R502	1-216-1
R503	1-216-0
R504	1-216-0
R505	1-216-0

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	REMARK
%	50V
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%	50V
%	50V
%	50V
%	50V
%	16V
%	50V
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%	50V
%	16V
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%	16V

BB

REF. NO.	PART NO.	DESCRIPTION	REMARK
D504	8-719-105-82	DIODE RD5.1M-B2	
D505	8-719-801-78	DIODE 1SS184	
D506	8-719-105-82	DIODE RD5.1M-B2	
D507	8-719-105-82	DIODE RD5.1M-B2	
D508	8-719-105-82	DIODE RD5.1M-B2	
D509	8-719-105-82	DIODE RD5.1M-B2	
D510	8-719-105-82	DIODE RD5.1M-B2	
D511	8-719-105-82	DIODE RD5.1M-B2	
D512	8-719-105-82	DIODE RD5.1M-B2	
D513	8-719-105-82	DIODE RD5.1M-B2	
D514	8-719-105-82	DIODE RD5.1M-B2	
D515	8-719-105-82	DIODE RD5.1M-B2	
D516	8-719-106-80	DIODE RD13M-B2	
D518	8-719-106-80	DIODE RD13M-B2	
D520	8-719-105-82	DIODE RD5.1M-B2	
D521	8-719-105-82	DIODE RD5.1M-B2	
D522	8-719-106-80	DIODE RD13M-B2	
D523	8-719-106-80	DIODE RD13M-B2	
D524	8-719-105-82	DIODE RD5.1M-B2	
D525	8-719-105-28	DIODE RD2.4M-B	
D526	8-719-801-78	DIODE 1SS184	
D527	8-719-105-82	DIODE RD5.1M-B2	
D528	8-719-801-78	DIODE 1SS184	
D529	8-719-105-46	DIODE RD3.3M-B2	
D530	8-719-801-78	DIODE 1SS184	
D531	8-719-105-82	DIODE RD5.1M-B2	
D532	8-719-105-82	DIODE RD5.1M-B2	
D533	8-719-105-82	DIODE RD5.1M-B2	
D534	8-719-105-82	DIODE RD5.1M-B2	
D634	8-719-801-78	DIODE 1SS184	
D652	8-719-801-78	DIODE 1SS184	
D653	8-719-801-78	DIODE 1SS184	
		<IC>	
IC401	8-759-800-81	IC LA7016	
IC402	8-759-231-58	IC TA7812S	
IC403	8-759-929-65	IC LM7912CT	
IC404	8-759-300-71	IC HD14053BFP	
IC405	8-759-926-18	IC SN74HC157ANS	
IC407	8-759-926-18	IC SN74HC157ANS	
IC408	8-759-300-71	IC HD14053BFP	
IC409	8-759-300-71	IC HD14053BFP	
IC410	8-759-100-96	IC uPC4558G2	
IC411	8-759-100-96	IC uPC4558G2	
IC412	8-759-145-27	IC uPC1406HA	
IC413	8-749-922-84	IC BX-6474	
IC414	8-749-922-83	IC BX-6473	
IC415	8-749-922-83	IC BX-6473	
IC416	8-749-922-83	IC BX-6473	
IC417	8-749-010-54	IC BX7913A	
IC418	8-749-010-58	IC BX6589	
IC419	8-749-010-58	IC BX6589	
IC420	8-749-010-58	IC BX6589	
IC422	8-759-100-93	IC uPC393G2	
IC423	8-759-925-85	IC SN74HC32ANS	
IC424	8-759-100-93	IC uPC393G2	
		<JACK>	
J101	1-566-980-21	CONNECTOR, ROUND TYPE 4P	
		<COIL>	
L401	1-459-155-00	COIL (WITH CORE) 45UH	
L402	1-459-155-00	COIL (WITH CORE) 45UH	
L403	1-459-155-00	COIL (WITH CORE) 45UH	
L404	1-459-155-00	COIL (WITH CORE) 45UH	

BB

REF. NO.	PART NO.	DESCRIPTION	REMARK
L405	1-410-671-31	INDUCTOR 47UH	
L605	1-410-482-31	INDUCTOR 100UH	
L651	1-410-482-31	INDUCTOR 100UH	
		<TRANSISTOR>	
Q401	8-729-140-96	TRANSISTOR 2SD774-34	
Q402	8-729-140-97	TRANSISTOR 2SB734-34	
Q403	8-729-901-01	TRANSISTOR DTC144EK	
Q404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q405	8-729-901-01	TRANSISTOR DTC144EK	
Q440	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q450	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q451	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q452	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q453	8-729-901-01	TRANSISTOR DTC144EK	
Q454	8-729-901-01	TRANSISTOR DTC144EK	
Q456	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q457	8-729-216-22	TRANSISTOR 2SA1162-G	
Q458	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q459	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q460	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q501	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q502	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q503	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q504	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q506	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q507	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q508	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q509	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q510	8-729-901-01	TRANSISTOR DTC144EK	
Q511	8-729-901-01	TRANSISTOR DTC144EK	
Q512	8-729-901-01	TRANSISTOR DTC144EK	
Q513	8-729-901-01	TRANSISTOR DTC144EK	
Q514	8-729-901-01	TRANSISTOR DTC144EK	
Q515	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q516	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q517	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q518	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q519	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q520	8-729-901-01	TRANSISTOR DTC144EK	
Q521	8-729-901-01	TRANSISTOR DTC144EK	
Q522	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q523	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q524	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q525	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q526	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q527	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q528	8-729-901-01	TRANSISTOR DTC144EK	
Q529	8-729-901-01	TRANSISTOR DTC144EK	
Q530	8-729-901-01	TRANSISTOR DTC144EK	
Q531	8-729-901-01	TRANSISTOR DTC144EK	
Q532	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q533	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q534	8-729-320-62	TRANSISTOR 2SD789-34	
Q535	8-729-901-01	TRANSISTOR DTC144EK	
Q536	8-729-901-01	TRANSISTOR DTC144EK	
Q537	8-729-901-01	TRANSISTOR DTC144EK	
Q538	8-729-901-01	TRANSISTOR DTC144EK	
Q539	8-729-901-01	TRANSISTOR DTC144EK	
Q540	8-729-901-01	TRANSISTOR DTC144EK	
Q541	8-729-901-01	TRANSISTOR DTC144EK	
Q542	8-729-901-01	TRANSISTOR DTC144EK	
Q543	8-729-901-01	TRANSISTOR DTC144EK	
Q544	8-729-901-01	TRANSISTOR DTC144EK	
Q545	8-729-216-22	TRANSISTOR 2SA1162-G	
Q546	8-729-901-01	TRANSISTOR DTC144EK	
Q547	8-729-216-22	TRANSISTOR 2SA1162-G	

BB

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q548	8-729-901-01	TRANSISTOR DTC144EK	
Q549	8-729-901-01	TRANSISTOR DTC144EK	
Q550	8-729-901-01	TRANSISTOR DTC144EK	
Q551	8-729-901-01	TRANSISTOR DTC144EK	
Q552	8-729-901-01	TRANSISTOR DTC144EK	
Q553	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q650	8-729-116-05	TRANSISTOR 2SK160-K5	
Q651	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q652	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q653	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q654	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q656	8-729-901-01	TRANSISTOR DTC144EK	
Q700	8-729-116-05	TRANSISTOR 2SK160-K5	
Q701	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q702	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q703	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q704	8-729-923-06	TRANSISTOR FMW-8	
Q705	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q706	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q707	8-729-923-06	TRANSISTOR FMW-8	
Q708	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q709	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q710	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q741	8-729-901-01	TRANSISTOR DTC144EK	
Q750	8-729-116-05	TRANSISTOR 2SK160-K5	
Q751	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q752	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q753	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q754	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q755	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q756	8-729-901-01	TRANSISTOR DTC144EK	
Q757	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q800	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
R401	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R403	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R404	1-208-824-11	METAL CHIP 56K 0.50% 1/10W	
R405	1-208-822-11	METAL CHIP 47K 0.50% 1/10W	
R440	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R441	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R450	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R451	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R452	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R453	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R454	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R455	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R456	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R459	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R460	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R461	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R462	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R463	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R464	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R466	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R467	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R468	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R469	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R470	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R471	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R472	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R473	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R474	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R501	1-216-624-11	METAL CHIP 75 0.50% 1/10W	
R502	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R503	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R504	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R505	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	

REF. NO.	PART NO.	DESCRIPTION			REMARK
R506	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R507	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R508	1-216-025-91	METAL GLAZE	100	5%	1/10W
R509	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R510	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R511	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R512	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R513	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R514	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R516	1-216-041-00	METAL GLAZE	470	5%	1/10W
R518	1-216-025-91	METAL GLAZE	100	5%	1/10W
R519	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R520	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R521	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R522	1-216-041-00	METAL GLAZE	470	5%	1/10W
R523	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R524	1-216-041-00	METAL GLAZE	470	5%	1/10W
R525	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R526	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R527	1-216-041-00	METAL GLAZE	470	5%	1/10W
R528	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R529	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R530	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R531	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R532	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R533	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R534	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R535	1-216-025-91	METAL GLAZE	100	5%	1/10W
R536	1-216-025-91	METAL GLAZE	100	5%	1/10W
R537	1-216-025-91	METAL GLAZE	100	5%	1/10W
R538	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R539	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R540	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R541	1-216-041-00	METAL GLAZE	470	5%	1/10W
R542	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R543	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R544	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R545	1-216-025-91	METAL GLAZE	100	5%	1/10W
R546	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R547	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R548	1-216-025-91	METAL GLAZE	100	5%	1/10W
R549	1-216-025-91	METAL GLAZE	100	5%	1/10W
R550	1-216-047-91	METAL GLAZE	820	5%	1/10W
R551	1-216-025-91	METAL GLAZE	100	5%	1/10W
R552	1-216-025-91	METAL GLAZE	100	5%	1/10W
R553	1-216-025-91	METAL GLAZE	100	5%	1/10W
R554	1-216-025-91	METAL GLAZE	100	5%	1/10W
R555	1-216-047-91	METAL GLAZE	820	5%	1/10W
R556	1-216-025-91	METAL GLAZE	100	5%	1/10W
R557	1-216-025-91	METAL GLAZE	100	5%	1/10W
R558	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R559	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R560	1-216-025-91	METAL GLAZE	100	5%	1/10W
R561	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R562	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R563	1-216-035-00	METAL GLAZE	270	5%	1/10W
R564	1-216-043-91	METAL GLAZE	560	5%	1/10W
R565	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R566	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R567	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R568	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R569	1-216-295-91	CONDUCTOR, CHIP			
R570	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R571	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R572	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R573	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R574	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R575	1-208-774-11	METAL CHIP	470	0.50%	1/10W

BB

REF. NO.	PART NO.	DESCRIPTION			REMARK
R576	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R577	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R578	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R579	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R580	1-216-025-91	METAL GLAZE	100	5%	1/10W
R581	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R582	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R583	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R584	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R585	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R586	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R587	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R588	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R589	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R590	1-216-025-91	METAL GLAZE	100	5%	1/10W
R591	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R592	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R593	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R594	1-216-025-91	METAL GLAZE	100	5%	1/10W
R595	1-216-025-91	METAL GLAZE	100	5%	1/10W
R596	1-216-025-91	METAL GLAZE	100	5%	1/10W
R597	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R598	1-216-025-91	METAL GLAZE	100	5%	1/10W
R599	1-216-025-91	METAL GLAZE	100	5%	1/10W
R600	1-216-025-91	METAL GLAZE	100	5%	1/10W
R601	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R602	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R603	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R604	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R605	1-216-025-91	METAL GLAZE	100	5%	1/10W
R606	1-216-025-91	METAL GLAZE	100	5%	1/10W
R607	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R608	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R609	1-216-017-91	METAL GLAZE	47	5%	1/10W
R610	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R611	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R612	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R613	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R614	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R615	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R616	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R617	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R618	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R619	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R620	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R621	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R622	1-216-448-11	METAL OXIDE	39	5%	2W F
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R624	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R625	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R626	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R627	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R628	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R629	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R630	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R631	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R632	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R633	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R634	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R637	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R639	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R640	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R641	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R642	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R643	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R644	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R645	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R646	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R647	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R648	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R649	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R650	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R651	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R652	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R653	1-216-025-91	METAL GLAZE	100	5%	1/10W
R654	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R655	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R656	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R657	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R658	1-216-025-91	METAL GLAZE	100	5%	1/10W
R659	1-216-025-91	METAL GLAZE	100	5%	1/10W
R660	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R661	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R663	1-216-001-00	METAL GLAZE	10	5%	1/10W
R664	1-216-017-91	METAL GLAZE	47	5%	1/10W
R665	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R666	1-216-017-91	METAL GLAZE	47	5%	1/10W
R667	1-216-017-91	METAL GLAZE	47	5%	1/10W
R668	1-216-017-91	METAL GLAZE	47	5%	1/10W
R686	1-216-025-91	METAL GLAZE	100	5%	1/10W
R688	1-216-025-91	METAL GLAZE	100	5%	1/10W
R700	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R701	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R702	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R703	1-216-025-91	METAL GLAZE	100	5%	1/10W
R704	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R705	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R706	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R707	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R708	1-216-025-91	METAL GLAZE	100	5%	1/10W
R709	1-216-017-91	METAL GLAZE	47	5%	1/10W
R710	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R711	1-216-025-91	METAL GLAZE	100	5%	1/10W
R712	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R713	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R714	1-216-025-91	METAL GLAZE	100	5%	1/10W
R715	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R716	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R717	1-216-025-91	METAL GLAZE	100	5%	1/10W
R718	1-216-017-91	METAL GLAZE	47	5%	1/10W
R719	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R720	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R721	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R722	1-216-025-91	METAL GLAZE	100	5%	1/10W
R723	1-216-025-91	METAL GLAZE	100	5%	1/10W
R724	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R725	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R727	1-216-001-00	METAL GLAZE	10	5%	1/10W
R728	1-216-017-91	METAL GLAZE	47	5%	1/10W
R729	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R750	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R751	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R752	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R753	1-216-025-91	METAL GLAZE	100	5%	1/10W
R755	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R756	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R757	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R758	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R759	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R760	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R761	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R762	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R763	1-216-025-91	METAL GLAZE	100	5%	1/10W
R764	1-216-025-91	METAL GLAZE	100	5%	1/10W

BB PA

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
R765	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R766	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R768	1-216-001-00	METAL GLAZE	10	5%	1/10W
R769	1-216-017-91	METAL GLAZE	47	5%	1/10W
R770	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R791	1-216-041-00	METAL GLAZE	470	5%	1/10W
R836	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R837	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R900	1-216-049-91	METAL GLAZE	1K	5%	1/10W
		<RELAY>			
RL401	1-515-757-11	RELAY			
RL402	1-515-757-11	RELAY			
RL403	1-515-757-11	RELAY			
		<TERMINAL BOARD>			
TB102	1-537-257-11	TERMINAL BOARD, INPUT/OUTPUT			
TB501	1-537-956-11	TERMINAL BOARD ASSY, I/O			
**********					
	* A-1195-081-A	PA BOARD, COMPLETE **********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C1	1-124-903-11	ELECT	1MF	20%	50V
C2	1-124-903-11	ELECT	1MF	20%	50V
C3	1-126-963-11	ELECT	4.7MF	20%	50V
C4	1-126-963-11	ELECT	4.7MF	20%	50V
C5	1-126-963-11	ELECT	4.7MF	20%	50V
C6	1-126-963-11	ELECT	4.7MF	20%	50V
C7	1-124-907-11	ELECT	10MF	20%	50V
C8	1-130-471-00	FILM	0.001MF	5%	50V
C9	1-104-663-11	ELECT	33MF	20%	16V
C10	1-126-961-11	ELECT	2.2MF	20%	50V
C11	1-136-165-00	FILM	0.1MF	5%	50V
C12	1-124-907-11	ELECT	10MF	20%	50V
C13	1-136-169-00	FILM	0.22MF	5%	50V
C14	1-124-907-11	ELECT	10MF	20%	50V
C15	1-124-119-00	ELECT	330MF	20%	16V
C16	1-102-973-00	CERAMIC	100PF	5%	50V
C17	1-136-165-00	FILM	0.1MF	5%	50V
C18	1-136-165-00	FILM	0.1MF	5%	50V
C19	1-136-165-00	FILM	0.1MF	5%	50V
C20	1-136-165-00	FILM	0.1MF	5%	50V
C21	1-101-004-00	CERAMIC	0.01MF		50V
C22	1-102-973-00	CERAMIC	100PF	5%	50V
C23	1-124-907-11	ELECT	10MF	20%	50V
C24	1-124-907-11	ELECT	10MF	20%	50V
C25	1-136-169-00	FILM	0.22MF	5%	50V
C26	1-102-978-00	CERAMIC	220PF	5%	50V
C27	1-124-907-11	ELECT	10MF	20%	50V
C28	1-124-907-11	ELECT	10MF	20%	50V
C29	1-124-907-11	ELECT	10MF	20%	50V
C30	1-101-004-00	CERAMIC	0.01MF		50V
C31	1-101-004-00	CERAMIC	0.01MF		50V
C32	1-102-973-00	CERAMIC	100PF	5%	50V
C33	1-102-973-00	CERAMIC	100PF	5%	50V
C34	1-102-973-00	CERAMIC	100PF	5%	50V
C35	1-124-119-00	ELECT	330MF	20%	16V
C36	1-137-364-11	FILM	0.001MF	5%	50V
C37	1-104-999-11	MYLAR	0.1MF	10%	200V
C38	1-124-903-11	ELECT	1MF	20%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C39	1-124-903-11	ELECT	1MF	20%	50V
C40	1-137-366-11	FILM	0.0022MF	5%	50V
C41	1-126-600-11	ELECT	100MF	20%	160V
C42	⚠1-136-722-11	FILM	0.008MF	3%	1.6KV
C43	1-136-561-11	FILM	0.0068MF	10%	630V
C45	1-137-364-11	FILM	0.001MF	5%	50V
C46	1-104-665-11	ELECT	100MF	20%	16V
C47	1-124-903-11	ELECT	1MF	20%	50V
C49	1-136-561-11	FILM	0.0068MF	10%	630V
C50	1-137-364-11	FILM	0.001MF	5%	50V
C51	1-126-600-11	ELECT	100MF	20%	160V
C52	1-126-600-11	ELECT	100MF	20%	160V
C53	1-102-030-00	CERAMIC	330PF	10%	500V
C54	⚠1-136-729-11	FILM	1.5MF	5%	400V
C55	1-124-903-11	ELECT	1MF	20%	50V
C56	1-108-692-11	MYLAR	0.01MF	10%	200V
C57	1-104-999-11	MYLAR	0.1MF	10%	200V
C58	1-104-664-11	ELECT	47MF	20%	16V
C59	1-136-165-00	FILM	0.1MF	5%	50V
C60	1-101-004-00	CERAMIC	0.01MF		50V
C61	1-101-004-00	CERAMIC	0.01MF		50V
C62	1-136-165-00	FILM	0.1MF	5%	50V
C63	1-136-165-00	FILM	0.1MF	5%	50V
C65	1-136-103-00	FILM	0.1MF	5%	200V
C67	1-101-004-00	CERAMIC	0.01MF		50V
C68	1-101-004-00	CERAMIC	0.01MF		50V
C70	1-101-004-00	CERAMIC	0.01MF		50V
C71	1-102-973-00	CERAMIC	100PF	5%	50V
C72	1-102-973-00	CERAMIC	100PF	5%	50V
C73	1-104-665-11	ELECT	100MF	20%	16V
C74	1-124-478-11	ELECT	100MF	20%	25V
C75	1-124-563-11	ELECT	2200MF	20%	25V
C78	1-126-965-11	ELECT	22MF	20%	50V
C80	1-124-907-11	ELECT	10MF	20%	50V
C81	1-102-973-00	CERAMIC	100PF	5%	50V
		<LEAD PIN>			
CLP1	4-352-844-01	PIN, LEAD, COATING			
CLP2	4-352-844-01	PIN, LEAD, COATING			
		<CONNECTOR>			
CN281	* 1-564-518-11	PLUG, CONNECTOR 3P			
CN282	* 1-564-520-11	PLUG, CONNECTOR 5P			
CN283	* 1-564-526-11	PLUG, CONNECTOR 11P			
CN284	* 1-564-528-11	PLUG, CONNECTOR 13P			
CN285	1-564-523-11	PLUG, CONNECTOR 8P			
CN286	* 1-506-348-99	PIN, CONNECTOR 6P			
CN287	* 1-564-521-11	PLUG, CONNECTOR 6P			
CN288	* 1-564-518-11	PLUG, CONNECTOR 3P			
CN289	1-508-765-00	PIN, CONNECTOR (5mm PITCH) 3P			
CN290	1-506-348-99	PIN, CONNECTOR 4P			
CN296	1-564-517-11	PLUG, CONNECTOR 2P			
		<DIODE>			
D1	8-719-911-19	DIODE 1SS119-25			
D2	8-719-911-19	DIODE 1SS119-25			
D3	8-719-911-19	DIODE 1SS119-25			
D4	8-719-911-19	DIODE 1SS119-25			
D5	8-719-109-85	DIODE RD5.1ESB2			
D6	8-719-911-19	DIODE 1SS119-25			
D7	8-719-110-41	DIODE RD15ESB2			
D8	8-719-110-36	DIODE RD13ESB2			
D9	8-719-911-19	DIODE 1SS119-25			
D10	8-719-109-85	DIODE RD5.1ESB2			
D11	8-719-109-66	DIODE RD3.3ESB2			

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Ne les remplacer que par une piece portant le numero specifie.

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PA

REF. NO.	PART NO.	DESCRIPTION	REMARK
D12	8-719-109-85	DIODE RD5.1ESB2	
D13	8-719-911-19	DIODE 1SS119-25	
D14	8-719-911-19	DIODE 1SS119-25	
D15	8-719-911-19	DIODE 1SS119-25	
D16	8-719-110-36	DIODE RD13ESB2	
D17	8-719-945-81	DIODE ERC06-15SA	
D18	8-719-911-19	DIODE 1SS119-25	
D19	8-719-945-81	DIODE ERC06-15SA	
D20	8-719-911-19	DIODE 1SS119-25	
D21	8-719-911-19	DIODE 1SS119-25	
D22	8-719-110-36	DIODE RD13ESB2	
D23	8-719-920-67	DIODE ERC91-02	
D24	8-719-911-19	DIODE 1SS119-25	
D25	8-719-911-19	DIODE 1SS119-25	
D26	8-719-920-67	DIODE ERC91-02	
D27	8-719-911-19	DIODE 1SS119-25	
D28	8-719-911-19	DIODE 1SS119-25	
D29	8-719-911-19	DIODE 1SS119-25	
D30	8-719-110-78	DIODE RD33ESB2	
D31	8-719-911-19	DIODE 1SS119-25	
D32	8-719-900-95	DIODE V09G	
D33	8-719-911-19	DIODE 1SS119-25	
D34	8-719-920-67	DIODE ERC91-02	
D35	8-719-911-19	DIODE 1SS119-25	
D36	8-719-110-36	DIODE RD13ESB2	
D37	8-719-911-19	DIODE 1SS119-25	
		<FERRITE BEAD>	
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
		<IC>	
IC1	8-759-503-91	IC TL082ACP	
	7-322-065-19	RUBBER, SILICON RTV (KE490W) ; IC1	
IC5	8-759-231-58	IC TA7812S	
IC6	8-759-929-65	IC LM7912CT	
IC7	8-759-240-40	IC TC4040BP	
IC8	8-759-045-72	IC MC14572UBCP	
IC9	8-759-140-11	IC uPD4011BC	
IC10	8-759-040-01	IC MC14001BCP	
IC11	8-759-503-91	IC TL082ACP	
IC13	8-759-908-15	IC TL431CLP	
IC14	8-759-145-58	IC uPC4558C	
		<COIL>	
L1	1-409-543-11	COIL, CHOKE 420UH	
L2	1-409-543-11	COIL, CHOKE 420UH	
L3	1-459-614-11	COIL, CHOKE 90UH	
L4	1-459-614-11	COIL, CHOKE 90UH	
L5	1-459-155-00	COIL (WITH CORE) 45UH	
L6	1-459-155-00	COIL (WITH CORE) 45UH	
L7	1-412-525-31	INDUCTOR 10UH	
L8	1-412-525-31	INDUCTOR 10UH	
		<NEON LAMP>	
NL1	1-519-108-99	LAMP, NEON	
		<TRANSISTOR>	
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q7	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q9	8-729-140-96	TRANSISTOR 2SD774-34	
Q10	8-729-140-97	TRANSISTOR 2SB734-34	
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q12	8-729-900-65	TRANSISTOR DTA144ES	
Q13	8-729-900-89	TRANSISTOR DTC144ES	
Q15	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q18	8-729-804-48	TRANSISTOR 2SC3675	
Q19	8-729-024-38	TRANSISTOR IRFIP250	
Q20	8-729-143-42	TRANSISTOR 2SK929	
Q21	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK	
		<RESISTOR>	

⧓R1	⚠	METAL			1/4W
R2	1-247-863-91	CARBON	22K	5%	1/4W
R3	1-249-439-11	CARBON	68K	5%	1/4W
⧓R4	⚠	METAL			1/4W
R5	1-247-863-91	CARBON	22K	5%	1/4W
R6	1-249-439-11	CARBON	68K	5%	1/4W
R7	1-247-863-91	CARBON	22K	5%	1/4W
R8	1-247-863-91	CARBON	22K	5%	1/4W
R9	1-247-843-11	CARBON	3.3K	5%	1/4W
R10	1-249-429-11	CARBON	10K	5%	1/4W
R12	1-249-429-11	CARBON	10K	5%	1/4W
R13	1-249-429-11	CARBON	10K	5%	1/4W
R14	1-249-429-11	CARBON	10K	5%	1/4W
R15	1-247-863-91	CARBON	22K	5%	1/4W
R16	1-249-425-11	CARBON	4.7K	5%	1/4W
R17	1-247-807-31	CARBON	100	5%	1/4W
R18	1-249-429-11	CARBON	10K	5%	1/4W
R19	1-249-429-11	CARBON	10K	5%	1/4W
R20	1-247-863-91	CARBON	22K	5%	1/4W
R21	1-249-441-11	CARBON	100K	5%	1/4W
R22	1-215-463-00	METAL	56K	1%	1/4W
R23	1-215-455-00	METAL	27K	1%	1/4W
R24	1-249-429-11	CARBON	10K	5%	1/4W
R26	1-249-417-11	CARBON	1K	5%	1/4W
R27	1-249-429-11	CARBON	10K	5%	1/4W
R28	1-215-423-00	METAL	1.2K	1%	1/4W
⧓R29	⚠	METAL			1/4W
⧓R30	⚠	METAL			1/4W
R31	1-249-436-11	CARBON	39K	5%	1/4W
R32	1-215-473-00	METAL	150K	1%	1/4W
⧓R33	⚠	METAL			1/4W
⧓R34	⚠	METAL			1/4W
R35	1-249-417-11	CARBON	1K	5%	1/4W
R36	1-247-843-11	CARBON	3.3K	5%	1/4W
R37	1-249-429-11	CARBON	10K	5%	1/4W
R38	1-249-429-11	CARBON	10K	5%	1/4W
R39	1-249-429-11	CARBON	10K	5%	1/4W
R41	1-249-431-11	CARBON	15K	5%	1/4W
R42	1-249-417-11	CARBON	1K	5%	1/4W
R43	1-215-461-00	METAL	47K	1%	1/4W
R44	1-215-432-00	METAL	3K	1%	1/4W
R45	1-215-432-00	METAL	3K	1%	1/4W
R46	1-215-432-00	METAL	3K	1%	1/4W
R47	1-215-432-00	METAL	3K	1%	1/4W
R48	1-249-417-11	CARBON	1K	5%	1/4W
R49	1-249-417-11	CARBON	1K	5%	1/4W
R50	1-249-429-11	CARBON	10K	5%	1/4W
R51	1-247-843-11	CARBON	3.3K	5%	1/4W
R52	1-247-843-11	CARBON	3.3K	5%	1/4W
R53	1-249-417-11	CARBON	1K	5%	1/4W

PA **DM**

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The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION				REMARK
R54	1-249-417-11	CARBON	1K	5%	1/4W	
R55	1-247-843-11	CARBON	3.3K	5%	1/4W	
R56	1-247-895-91	CARBON	470K	5%	1/4W	
R57	1-249-417-11	CARBON	1K	5%	1/4W	
R58	1-249-437-11	CARBON	47K	5%	1/4W	
R59	1-247-903-00	CARBON	1M	5%	1/4W	
R61	1-249-417-11	CARBON	1K	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-249-411-11	CARBON	330	5%	1/4W	
R64	1-215-456-00	METAL	30K	1%	1/4W	
R65	1-215-445-00	METAL	10K	1%	1/4W	
R66	1-215-445-00	METAL	10K	1%	1/4W	
R67	1-247-903-00	CARBON	1M	5%	1/4W	
R68	1-249-417-11	CARBON	1K	5%	1/4W	
R69	1-215-455-00	METAL	27K	1%	1/4W	
R71	1-249-429-11	CARBON	10K	5%	1/4W	
R72	1-247-807-31	CARBON	100	5%	1/4W	
R73	1-247-843-11	CARBON	3.3K	5%	1/4W	
R74	1-249-417-11	CARBON	1K	5%	1/4W	
R75	1-247-807-31	CARBON	100	5%	1/4W	
R76	1-247-807-31	CARBON	100	5%	1/4W	
R77	1-249-937-11	CARBON	3.9K	5%	1/4W	F
R78	1-249-431-11	CARBON	15K	5%	1/4W	
R79	1-249-431-11	CARBON	15K	5%	1/4W	
R80	1-249-417-11	CARBON	1K	5%	1/4W	
R81	1-249-441-11	CARBON	100K	5%	1/4W	
R82	1-249-441-11	CARBON	100K	5%	1/4W	
R83	1-249-422-11	CARBON	2.7K	5%	1/4W	
R84	1-249-431-11	CARBON	15K	5%	1/4W	
R85	1-215-892-11	METAL OXIDE	1K	5%	2W	F
R86	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F
R88	1-249-441-11	CARBON	100K	5%	1/4W	
R89	1-215-905-11	METAL OXIDE	10	5%	3W	F
R90	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R91	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R92	1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R93	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R94	1-215-863-11	METAL OXIDE	100	5%	1W	F
R95	1-215-461-00	METAL	47K	1%	1/4W	
R96	1-249-437-11	CARBON	47K	5%	1/4W	
R97	1-247-863-91	CARBON	22K	5%	1/4W	
R98	1-215-863-11	METAL OXIDE	100	5%	1W	F
R99	1-247-725-11	CARBON	10K	5%	1/4W	F
R101	1-247-807-31	CARBON	100	5%	1/4W	
R102	1-249-441-11	CARBON	100K	5%	1/4W	
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-441-11	CARBON	100K	5%	1/4W	
R105	1-249-429-11	CARBON	10K	5%	1/4W	
R106	1-249-425-11	CARBON	4.7K	5%	1/4W	
R107	1-247-863-91	CARBON	22K	5%	1/4W	
R108	1-249-441-11	CARBON	100K	5%	1/4W	
R109	1-249-437-11	CARBON	47K	5%	1/4W	
R110	1-249-441-11	CARBON	100K	5%	1/4W	
R111	1-249-437-11	CARBON	47K	5%	1/4W	
R116	1-215-477-00	METAL	220K	1%	1/4W	
R117	1-247-725-11	CARBON	10K	5%	1/4W	F
R118	1-202-726-00	SOLID	3.9M	20%	1/2W	
R121	1-215-475-00	METAL	180K	1%	1/4W	
R122	1-215-475-00	METAL	180K	1%	1/4W	
R124	1-249-425-11	CARBON	4.7K	5%	1/4W	
R125	1-247-807-31	CARBON	100	5%	1/4W	
R126	1-249-429-11	CARBON	10K	5%	1/4W	
R127	1-247-807-31	CARBON	100	5%	1/4W	
R128	1-247-807-31	CARBON	100	5%	1/4W	
⧓R131 ⚠		METAL			1/4W	
⧓R132 ⚠		METAL			1/4W	
R133	1-215-905-11	METAL OXIDE	10	5%	3W	F
R134	1-215-905-11	METAL OXIDE	10	5%	3W	F
R135	1-215-905-11	METAL OXIDE	10	5%	3W	F
R136	1-202-726-00	SOLID	3.9M	20%	1/2W	
R137	1-249-401-11	CARBON	47	5%	1/4W	F
R138	1-249-417-11	CARBON	1K	5%	1/4W	
R139	1-247-807-31	CARBON	100	5%	1/4W	
R140	1-247-807-31	CARBON	100	5%	1/4W	
R141	1-247-807-31	CARBON	100	5%	1/4W	
R142	1-249-417-11	CARBON	1K	5%	1/4W	
R143	1-215-432-00	METAL	3K	1%	1/4W	
R144	1-215-432-00	METAL	3K	1%	1/4W	
R150	1-247-863-91	CARBON	22K	5%	1/4W	
R151	1-215-421-00	METAL	1K	1%	1/4W	
R152	1-215-445-00	METAL	10K	1%	1/4W	
R153	1-249-417-11	CARBON	1K	5%	1/4W	
R154	1-249-417-11	CARBON	1K	5%	1/4W	
R155	1-247-807-31	CARBON	100	5%	1/4W	
		<TRANSFORMER>				
T1	1-437-144-11	TRANSFORMER, FERRITE (HDT)				
		<CRYSTAL>				
X1	1-578-768-11	VIBLATOR, CERAMIC				

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*1-639-936-11 DM BOARD
****

1-506-348-99 PIN, CONNECTOR 4P
*1-506-348-99 PIN, CONNECTOR 6P
1-506-348-99 PIN, CONNECTOR 3P
1-506-348-99 PIN, CONNECOTR 5P
1-508-742-00 PIN, CONNECTOR 3P
*1-564-505-11 PLUG, CONNECTOR 2P
*1-564-507-11 PLUG, CONNECTOR 4P
*1-564-508-11 PLUG, CONNECTOR 5P
*1-564-509-11 PLUG, CONNECTOR 6P
*1-564-514-11 PLUG, CONNECTOR 11P
*1-564-515-11 PLUG, CONNECTOR 12P
*1-564-516-11 PLUG, CONNECTOR 13P
*1-568-985-11 CONNECTOR, FEMALE 64P

<CAPACITOR>

C1 1-126-942-61 ELECT 1000MF 20% 25V

<CONNECTOR>

DM2 *1-568-982-11 CONNECTOR, FEMALE 96P
DM3 *1-568-982-11 CONNECTOR, FEMALE 96P
DM4 *1-568-982-11 CONNECTOR, FEMALE 96P
DM5 *1-568-982-11 CONNECTOR, FEMALE 96P
DM31 *1-564-514-11 PLUG, CONNECTOR 11P
DM33 *1-568-982-11 CONNECTOR, FEMALE 96P
DM40 *1-564-512-11 PLUG, CONNECTOR 9P

<RESISTOR>

R1 1-215-908-00 METAL OXIDE 33 5% 3W F
R3 1-216-483-11 METAL OXIDE 2.7K 5% 3W F
R4 1-216-483-11 METAL OXIDE 2.7K 5% 3W F
R5 1-216-475-11 METAL OXIDE 120 5% 3W F

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E

REF. NO.	PART NO.	DESCRIPTION			REMARK
	*A-1346-190-A	E BOARD, COMPLETE			
		**********			
	1-508-742-00	PIN, CONNECTOR 3P			
	1-508-786-00	PIN, CONNECTOR (5mm PITCH) 2P			
	*1-564-509-11	PLUG, CONNECTOR 6P			
	*1-564-514-11	PLUG, CONNECTOR 11P			
	*1-564-516-11	PLUG, CONNECTOR 13P			
	*1-580-798-11	CONNECTOR PIN (DY) 6P			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C1	1-126-899-11	ELECT	3900MF	20%	16V
C2	1-126-899-11	ELECT	3900MF	20%	16V
C3	1-126-899-11	ELECT	3900MF	20%	16V
C4	1-102-824-00	CERAMIC	470PF	5%	50V
C5	1-136-153-00	FILM	0.01MF	5%	50V
C6	1-102-824-00	CERAMIC	470PF	5%	50V
C7	1-102-824-00	CERAMIC	470PF	5%	50V
C8	1-136-153-00	FILM	0.01MF	5%	50V
C9	1-102-824-00	CERAMIC	470PF	5%	50V
C10	1-136-153-00	FILM	0.01MF	5%	50V
C11	1-102-824-00	CERAMIC	470PF	5%	50V
C12	1-102-824-00	CERAMIC	470PF	5%	50V
C13	1-130-908-00	FILM	0.0039MF	3%	1.6KV
C14	1-130-908-00	FILM	0.0039MF	3%	1.6KV
C15	1-124-585-11	ELECT	3300MF	20%	10V
C16	1-124-585-11	ELECT	3300MF	20%	10V
C17	1-123-935-00	ELECT	33MF	20%	160V
C18	1-129-996-00	FILM	0.22MF	20%	630V
C19	1-124-585-11	ELECT	3300MF	20%	10V
C21	1-136-945-11	FILM	8.2MF	5%	200V
C22	1-136-945-11	FILM	8.2MF	5%	200V
C23	1-136-945-11	FILM	8.2MF	5%	200V
C24	1-136-945-11	FILM	8.2MF	5%	200V
C30	1-136-613-11	FILM	0.0068MF	3%	2KV
C31	1-104-999-11	MYLAR	0.1MF	10%	200V
C32	1-124-907-11	ELECT	10MF	20%	50V
C35	1-102-244-00	CERAMIC	220PF	10%	500V
C36	1-164-747-11	CERAMIC	330PF	15%	1.5KV
C37	1-164-747-11	CERAMIC	330PF	15%	1.5KV
C38	1-164-747-11	CERAMIC	330PF	15%	1.5KV
C101	1-102-973-00	CERAMIC	100PF	5%	50V
C102	1-136-159-00	FILM	0.033MF	5%	50V
C104	1-136-165-00	FILM	0.1MF	5%	50V
C105	1-136-165-00	FILM	0.1MF	5%	50V
C106	1-104-665-11	ELECT	100MF	20%	16V
C109	1-124-903-11	ELECT	1MF	20%	50V
C110	1-104-665-11	ELECT	100MF	20%	16V
C111	1-104-665-11	ELECT	100MF	20%	16V
C112	1-104-665-11	ELECT	100MF	20%	16V
C113	1-126-965-11	ELECT	22MF	20%	50V
C114	1-109-889-11	ELECT	1MF	20%	50V
C115	1-136-153-00	FILM	0.01MF	5%	50V
C116	1-137-366-11	FILM	0.0022MF	5%	50V
C117	1-102-973-00	CERAMIC	100PF	5%	50V
C118	1-136-165-00	FILM	0.1MF	5%	50V
C119	1-104-665-11	ELECT	100MF	20%	16V
C120	1-123-939-00	ELECT	10MF	20%	200V
C121	1-136-159-00	FILM	0.033MF	5%	50V
C122	1-123-024-21	ELECT	33MF		160V
C123	1-123-024-21	ELECT	33MF		160V
C124	1-125-499-11	ELECT(BLOCK)	220MF	20%	200V
C125	1-136-153-00	FILM	0.01MF	5%	50V
C126	1-137-364-11	FILM	0.001MF	5%	50V
C128	1-123-939-00	ELECT	10MF	20%	200V
C129	1-123-939-00	ELECT	10MF	20%	200V
C130	1-124-120-11	ELECT	220MF	20%	16V
C131	1-124-120-11	ELECT	220MF	20%	16V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C132	1-123-024-21	ELECT	33MF		160V
C133	1-109-889-11	ELECT	1MF	20%	50V
C134	1-124-478-11	ELECT	100MF	20%	25V
C135	1-124-478-11	ELECT	100MF	20%	25V
C136	1-124-907-11	ELECT	10MF	20%	50V
C137	1-102-973-00	CERAMIC	100PF	5%	50V
C138	1-124-907-11	ELECT	10MF	20%	50V
C139	1-126-942-61	ELECT	1000MF	20%	25V
C140	1-136-169-00	FILM	0.22MF	5%	50V
C141	1-137-364-11	FILM	0.001MF	5%	50V
C142	1-125-499-11	ELECT(BLOCK)	220MF	20%	200V
C143	1-102-824-00	CERAMIC	470PF	5%	50V
C144	1-136-165-00	FILM	0.1MF	5%	50V
C145	1-136-153-00	FILM	0.01MF	5%	50V
C146	1-136-173-00	FILM	0.47MF	5%	50V
C147	1-136-173-00	FILM	0.47MF	5%	50V
C148	1-104-665-11	ELECT	100MF	20%	16V
C149	1-124-907-11	ELECT	10MF	20%	50V
C150	1-137-364-11	FILM	0.001MF	5%	50V
C151	1-124-903-11	ELECT	1MF	20%	50V
C152	1-136-165-00	FILM	0.1MF	5%	50V
C153	1-104-663-11	ELECT	33MF	20%	16V
C154	1-136-165-00	FILM	0.1MF	5%	50V
C155	1-136-153-00	FILM	0.01MF	5%	50V
C156	1-136-165-00	FILM	0.1MF	5%	50V
C157	1-136-157-00	FILM	0.022MF	5%	50V
C158	1-128-475-11	ELECT	10MF		160V
C159	1-124-808-51	ELECT	10MF	20%	200V
C160	1-136-111-00	FILM	1MF	5%	200V
C161	1-124-903-11	ELECT	1MF	20%	50V
C162	1-136-111-00	FILM	1MF	5%	200V
C163	1-124-907-11	ELECT	10MF	20%	50V
C164	1-124-907-11	ELECT	10MF	20%	50V
C165	1-124-907-11	ELECT	10MF	20%	50V
C166	1-124-907-11	ELECT	10MF	20%	50V
C167	1-102-824-00	CERAMIC	470PF	5%	50V
C168	1-136-153-00	FILM	0.01MF	5%	50V
C169	1-107-721-11	ELECT	4.7MF	20%	50V
C170	1-104-663-11	ELECT	33MF	20%	16V
C171	1-136-165-00	FILM	0.1MF	5%	50V
C172	1-124-907-11	ELECT	10MF	20%	50V
C173	1-104-663-11	ELECT	33MF	20%	16V
C174	1-104-663-11	ELECT	33MF	20%	16V
C175	1-130-706-00	FILM	0.008MF	3%	1.6KV
C176	1-104-999-11	MYLAR	0.1MF	10%	200V
C177	1-124-907-11	ELECT	10MF	20%	50V
C178	1-101-004-00	CERAMIC	0.01MF		50V
C180	1-136-165-00	FILM	0.1MF	5%	50V
	7-322-065-19	RUBBER, SILICON RTV (KE4911W) ; C180			
		<DIODE>			
D1	8-719-970-89	DIODE DD50R			
D7	8-719-908-20	DIODE ERC88-009			
D8	8-719-908-20	DIODE ERC88-009			
D9	8-719-979-58	DIODE EGP10D			
D10	8-719-979-58	DIODE EGP10D			
D11	8-719-901-19	DIODE V11N			
D12	8-719-979-58	DIODE EGP10D			
D13	8-719-945-81	DIODE ERC06-15SA			
D14	8-719-900-95	DIODE V09G			
D15	8-719-933-02	DIODE ERD33-02			
D103	8-719-911-19	DIODE 1SS119-25			
D104	8-719-911-19	DIODE 1SS119-25			
D105	8-719-948-45	DIODE ERA22-08			
D106	8-719-948-45	DIODE ERA22-08			
D107	8-719-911-19	DIODE 1SS119-25			
D109	8-719-948-45	DIODE ERA22-08			
D110	8-719-911-19	DIODE 1SS119-25			

E

REF. NO.	PART NO.	DESCRIPTION	REMARK
D111	8-719-911-19	DIODE 1SS119-25	
D112	8-719-900-26	DIODE ERD29-08J	
D113	8-719-911-19	DIODE 1SS119-25	
D114	8-719-110-53	DIODE RD20ESB2	
D115	8-719-110-53	DIODE RD20ESB2	
D116	8-719-920-67	DIODE ERC91-02	
D117	8-719-911-19	DIODE 1SS119-25	
D118	8-719-948-45	DIODE ERA22-08	
D119	8-719-911-19	DIODE 1SS119-25	
D120	8-719-911-19	DIODE 1SS119-25	
D121	8-719-911-19	DIODE 1SS119-25	
D122	8-719-911-19	DIODE 1SS119-25	
D123	8-719-911-19	DIODE 1SS119-25	
D124	8-719-948-45	DIODE ERA22-08	
D126	8-719-110-88	DIODE RD39ESB2	
D127	8-719-110-41	DIODE RD15ESB2	
D128	8-719-110-41	DIODE RD15ESB2	
D129	8-719-110-41	DIODE RD15ESB2	
D130	8-719-110-41	DIODE RD15ESB2	
D131	8-719-911-19	DIODE 1SS119-25	
D132	8-719-911-19	DIODE 1SS119-25	
D133	8-719-911-19	DIODE 1SS119-25	
D134	8-719-300-80	DIODE RU-1C	
D135	8-719-300-80	DIODE RU-1C	
D136	8-719-300-80	DIODE RU-1C	
D137	8-719-300-80	DIODE RU-1C	
D138	8-719-911-19	DIODE 1SS119-25	
D139	8-719-911-19	DIODE 1SS119-25	
D140	8-719-911-19	DIODE 1SS119-25	
D141	8-719-911-19	DIODE 1SS119-25	
D142	8-719-911-19	DIODE 1SS119-25	
D143	8-719-911-19	DIODE 1SS119-25	
D144	8-719-901-19	DIODE V11N	
D145	8-719-911-19	DIODE 1SS119-25	
D146	8-719-948-45	DIODE ERA22-08	
D149	8-719-911-19	DIODE 1SS119-25	
		<CONNECTOR PLUG>	
E14	1-564-505-11	PLUG, CONNECTOR 2P	
		<FERRITE BEAD>	
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB4	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB5	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB6	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB7	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
		<IC>	
IC1	8-759-145-58	IC uPC4558C	
IC2	8-759-145-58	IC uPC4558C	
IC3	8-759-145-58	IC uPC4558C	
IC101	8-759-345-38	IC HD14538BP	
IC103	8-759-109-82	IC uPC814C	
IC104	8-759-145-58	IC uPC4558C	
IC105	8-759-145-58	IC uPC4558C	
IC106	8-759-145-58	IC uPC4558C	
IC107	8-759-433-43	IC MC1495BP	
IC108	8-759-145-58	IC uPC4558C	
IC109	8-759-231-58	IC TA7812S	
IC110	8-759-929-65	IC LM7912CT	
IC111	8-759-100-75	IC uPC1394C	
IC112	8-759-145-58	IC uPC4558C	
IC115	8-759-145-58	IC uPC4558C	

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>	
L100	1-459-483-00	COIL (WITH CORE)	
L102	1-459-155-00	COIL (WITH CORE) 45UH	
L103	1-459-155-00	COIL (WITH CORE) 45UH	
L104	1-459-155-00	COIL (WITH CORE) 45UH	
L106	1-459-483-00	COIL (WITH CORE)	
L107	1-410-093-11	INDUCTOR 33mH	
L108	1-410-093-11	INDUCTOR 33mH	
L109	1-459-104-00	COIL, DUST CORE	
L110	1-459-104-00	COIL, DUST CORE	
L111	1-410-093-11	INDUCTOR 33mH	
L112	1-460-022-11	COIL, CHOKE 1.3mH	
L113	1-410-680-31	INDUCTOR 330UH	
L114	1-410-686-11	INDUCTOR 1mH	
L115	1-407-500-00	INDUCTOR 4.7mH	
		<VARIABLE COIL>	
LV1	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV2	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV3	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
		<TRANSISTOR>	
Q1	8-729-142-69	TRANSISTOR 2SK817	
Q2	8-729-142-68	TRANSISTOR 2SJ143	
Q3	8-729-142-69	TRANSISTOR 2SK817	
Q4	8-729-142-68	TRANSISTOR 2SJ143	
Q5	8-729-142-69	TRANSISTOR 2SK817	
Q6	8-729-142-68	TRANSISTOR 2SJ143	
Q7	8-729-820-71	TRANSISTOR 2SC3998CA	
Q21	8-729-802-07	TRANSISTOR 2SD1403-CA	
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q101	8-729-105-74	TRANSISTOR 2SK523-M1	
Q102	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q107	8-729-140-96	TRANSISTOR 2SD774-34	
Q108	8-729-140-97	TRANSISTOR 2SB734-34	
Q109	8-729-105-74	TRANSISTOR 2SK523-M1	
Q110	8-729-143-42	TRANSISTOR 2SK929	
Q111	8-729-143-42	TRANSISTOR 2SK929	
Q112	8-729-142-68	TRANSISTOR 2SJ143	
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q115	8-729-926-42	TRANSISTOR XDC114ES	
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q117	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q118	8-729-105-74	TRANSISTOR 2SK523-M1	
Q120	8-729-802-71	TRANSISTOR 2SA1407-D	
Q121	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q127	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q128	8-729-926-42	TRANSISTOR XDC114ES	
Q129	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q130	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q131	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q132	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q133	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q134	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q135	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q136	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q137	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q138	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q139	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q140	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q141	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q142	8-729-143-42	TRANSISTOR 2SK929	
Q143	8-729-119-80	TRANSISTOR 2SC2688-LK	

E

REF. NO.	PART NO.	DESCRIPTION				REMARK
Q144	8-729-905-86	TRANSISTOR 2SC4054N				
Q145	8-729-402-03	TRANSISTOR 2SK755				
Q146	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q147	8-729-905-86	TRANSISTOR 2SC4054N				
Q148	8-729-802-71	TRANSISTOR 2SA1407-D				
		<RESISTOR>				
R1	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R2	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R3	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R4	1-249-417-11	CARBON	1K	5%	1/4W	
R5	1-215-445-00	METAL	10K	1%	1/4W	
R7	1-215-445-00	METAL	10K	1%	1/4W	
R8	1-215-445-00	METAL	10K	1%	1/4W	
R9	1-215-445-00	METAL	10K	1%	1/4W	
R10	1-249-417-11	CARBON	1K	5%	1/4W	
R11	1-214-824-11	METAL	22	1%	1/2W	
R12	1-214-824-11	METAL	22	1%	1/2W	
R13	1-214-824-11	METAL	22	1%	1/2W	
R14	1-249-417-11	CARBON	1K	5%	1/4W	
R15	1-215-445-00	METAL	10K	1%	1/4W	
R17	1-215-445-00	METAL	10K	1%	1/4W	
R18	1-215-445-00	METAL	10K	1%	1/4W	
R19	1-215-445-00	METAL	10K	1%	1/4W	
R20	1-249-417-11	CARBON	1K	5%	1/4W	
R21	1-214-832-00	METAL	47	1%	1/2W	
R22	1-214-832-00	METAL	47	1%	1/2W	
R23	1-214-832-00	METAL	47	1%	1/2W	
R24	1-249-417-11	CARBON	1K	5%	1/4W	
R25	1-215-445-00	METAL	10K	1%	1/4W	
R27	1-215-445-00	METAL	10K	1%	1/4W	
R28	1-215-445-00	METAL	10K	1%	1/4W	
R29	1-215-445-00	METAL	10K	1%	1/4W	
R30	1-249-417-11	CARBON	1K	5%	1/4W	
R31	1-214-824-11	METAL	22	1%	1/2W	
R32	1-214-824-11	METAL	22	1%	1/2W	
R33	1-214-824-11	METAL	22	1%	1/2W	
R34	1-214-824-11	METAL	22	1%	1/2W	
R35	1-214-824-11	METAL	22	1%	1/2W	
R36	1-214-824-11	METAL	22	1%	1/2W	
R37	1-214-832-00	METAL	47	1%	1/2W	
R38	1-214-832-00	METAL	47	1%	1/2W	
R39	1-214-832-00	METAL	47	1%	1/2W	
R40	1-214-824-11	METAL	22	1%	1/2W	
R41	1-214-824-11	METAL	22	1%	1/2W	
R42	1-214-824-11	METAL	22	1%	1/2W	
R51	1-260-297-11	CARBON	2.7	5%	1/2W	F
R52	1-260-297-11	CARBON	2.7	5%	1/2W	F
R53	1-260-297-11	CARBON	2.7	5%	1/2W	F
R54	1-215-857-11	METAL OXIDE	10	5%	1W	F
R55	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R56	1-247-716-11	CARBON	1.8K	5%	1/4W	F
R57	1-247-807-31	CARBON	100	5%	1/4W	
R58	1-247-807-31	CARBON	100	5%	1/4W	
R59	1-247-807-31	CARBON	100	5%	1/4W	
R60	1-247-807-31	CARBON	100	5%	1/4W	
R61	1-247-807-31	CARBON	100	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-247-712-11	CARBON	820	5%	1/4W	F
R64	1-247-712-11	CARBON	820	5%	1/4W	F
R65	1-247-712-11	CARBON	820	5%	1/4W	F
R66	1-215-905-11	METAL OXIDE	10	5%	3W	F
R67	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R68	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R69	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R101	1-215-457-00	METAL	33K	1%	1/4W	
R102	1-249-429-11	CARBON	10K	5%	1/4W	

REF. NO.	PART NO.	DESCRIPTION				REMARK
R103	1-249-429-11	CARBON	10K	5%	1/4W	
R109	1-249-429-11	CARBON	10K	5%	1/4W	
R110	1-249-417-11	CARBON	1K	5%	1/4W	
R111	1-249-429-11	CARBON	10K	5%	1/4W	
R112	1-249-425-11	CARBON	4.7K	5%	1/4W	
R113	1-247-807-31	CARBON	100	5%	1/4W	
R114	1-249-417-11	CARBON	1K	5%	1/4W	
R115	1-215-445-00	METAL	10K	1%	1/4W	
R116	1-215-445-00	METAL	10K	1%	1/4W	
R117	1-215-433-00	METAL	3.3K	1%	1/4W	
R118	1-247-843-11	CARBON	3.3K	5%	1/4W	
R119	1-215-457-00	METAL	33K	1%	1/4W	
R120	1-215-457-00	METAL	33K	1%	1/4W	
R121	1-215-445-00	METAL	10K	1%	1/4W	
R122	1-249-425-11	CARBON	4.7K	5%	1/4W	
R123	1-215-445-00	METAL	10K	1%	1/4W	
R124	1-215-445-00	METAL	10K	1%	1/4W	
R125	1-215-457-00	METAL	33K	1%	1/4W	
R126	1-215-457-00	METAL	33K	1%	1/4W	
R127	1-215-447-00	METAL	12K	1%	1/4W	
R128	1-215-445-00	METAL	10K	1%	1/4W	
R129	1-215-447-00	METAL	12K	1%	1/4W	
R130	1-249-425-11	CARBON	4.7K	5%	1/4W	
R131	1-215-445-00	METAL	10K	1%	1/4W	
R132	1-215-449-00	METAL	15K	1%	1/4W	
R133	1-249-425-11	CARBON	4.7K	5%	1/4W	
R134	1-215-453-00	METAL	22K	1%	1/4W	
R135	1-249-429-11	CARBON	10K	5%	1/4W	
R136	1-247-843-11	CARBON	3.3K	5%	1/4W	
R137	1-247-843-11	CARBON	3.3K	5%	1/4W	
R138	1-247-843-11	CARBON	3.3K	5%	1/4W	
R139	1-249-425-11	CARBON	4.7K	5%	1/4W	
R140	1-249-417-11	CARBON	1K	5%	1/4W	
R141	1-249-421-11	CARBON	2.2K	5%	1/4W	
R142	1-249-421-11	CARBON	2.2K	5%	1/4W	
R143	1-249-420-11	CARBON	1.8K	5%	1/4W	
R144	1-249-421-11	CARBON	2.2K	5%	1/4W	
R145	1-247-843-11	CARBON	3.3K	5%	1/4W	
R146	1-249-435-11	CARBON	33K	5%	1/4W	
R147	1-249-421-11	CARBON	2.2K	5%	1/4W	
R148	1-249-440-11	CARBON	82K	5%	1/4W	
R149	1-249-417-11	CARBON	1K	5%	1/4W	
R150	1-215-461-00	METAL	47K	1%	1/4W	
R151	1-249-425-11	CARBON	4.7K	5%	1/4W	
R152	1-215-445-00	METAL	10K	1%	1/4W	
R153	1-215-445-00	METAL	10K	1%	1/4W	
R154	1-247-895-91	CARBON	470K	5%	1/4W	
R155	1-249-420-11	CARBON	1.8K	5%	1/4W	
R156	1-249-437-11	CARBON	47K	5%	1/4W	
R157	1-249-413-11	CARBON	470	5%	1/4W	
R158	1-247-807-31	CARBON	100	5%	1/4W	
R159	1-247-807-31	CARBON	100	5%	1/4W	
R160	1-249-417-11	CARBON	1K	5%	1/4W	
R161	1-215-467-00	METAL	82K	1%	1/4W	
R162	1-215-866-11	METAL OXIDE	330	5%	1W	F
R163	1-215-461-00	METAL	47K	1%	1/4W	
R164	1-249-421-11	CARBON	2.2K	5%	1/4W	
R165	1-215-445-00	METAL	10K	1%	1/4W	
R166	1-249-429-11	CARBON	10K	5%	1/4W	
R167	1-249-437-11	CARBON	47K	5%	1/4W	
R168	1-249-429-11	CARBON	10K	5%	1/4W	
R169	1-247-725-11	CARBON	10K	5%	1/4W	F
R170	1-249-425-11	CARBON	4.7K	5%	1/4W	
R171	1-249-417-11	CARBON	1K	5%	1/4W	
R172	1-249-417-11	CARBON	1K	5%	1/4W	
R173	1-216-389-11	METAL OXIDE	1	5%	3W	F
R174	1-216-388-11	METAL OXIDE	0.82	5%	3W	F
R176	1-249-923-11	CARBON	1K	5%	1/4W	F
R177	1-215-445-00	METAL	10K	1%	1/4W	

E **KC**

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
R178	1-249-417-11	CARBON	1K	5%	1/4W
R179	1-249-429-11	CARBON	10K	5%	1/4W
R180	1-215-433-00	METAL	3.3K	1%	1/4W
R181	1-249-441-11	CARBON	100K	5%	1/4W
R182	1-249-421-11	CARBON	2.2K	5%	1/4W
R183	1-247-807-31	CARBON	100	5%	1/4W
R184	1-249-425-11	CARBON	4.7K	5%	1/4W
R186	1-249-437-11	CARBON	47K	5%	1/4W
R187	1-215-461-00	METAL	47K	1%	1/4W
R191	1-247-843-11	CARBON	3.3K	5%	1/4W
R192	1-247-863-91	CARBON	22K	5%	1/4W
R193	1-247-903-00	CARBON	1M	5%	1/4W
R194	1-247-843-11	CARBON	3.3K	5%	1/4W
R195	1-247-843-11	CARBON	3.3K	5%	1/4W
R196	1-247-883-00	CARBON	150K	5%	1/4W
R197	1-247-807-31	CARBON	100	5%	1/4W
R198	1-215-447-00	METAL	12K	1%	1/4W
R199	1-247-843-11	CARBON	3.3K	5%	1/4W
R201	1-249-417-11	CARBON	1K	5%	1/4W
R202	1-249-417-11	CARBON	1K	5%	1/4W
R203	1-249-453-11	CARBON	3.3	5%	1/4W F
R204	1-249-429-11	CARBON	10K	5%	1/4W
R205	1-249-427-11	CARBON	6.8K	5%	1/4W
R206	1-249-429-11	CARBON	10K	5%	1/4W
R207	1-249-441-11	CARBON	100K	5%	1/4W
R208	1-216-341-11	METAL OXIDE	0.22	5%	1W F
R209	1-249-417-11	CARBON	1K	5%	1/4W
R210	1-215-451-00	METAL	18K	1%	1/4W
R212	1-249-431-11	CARBON	15K	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-215-883-11	METAL OXIDE	33	5%	2W F
R215	1-249-417-11	CARBON	1K	5%	1/4W
R216	1-247-843-11	CARBON	3.3K	5%	1/4W
R217	1-249-399-11	CARBON	33	5%	1/4W
R218	1-249-417-11	CARBON	1K	5%	1/4W F
R219	1-215-445-00	METAL	10K	1%	1/4W
R220	1-215-445-00	METAL	10K	1%	1/4W
R221	1-249-476-11	CARBON	1.5	5%	1/2W F
R222	1-249-441-11	CARBON	100K	5%	1/4W
R223	1-249-429-11	CARBON	10K	5%	1/4W
R224	1-249-429-11	CARBON	10K	5%	1/4W
R225	1-249-421-11	CARBON	2.2K	5%	1/4W
R226	1-215-445-00	METAL	10K	1%	1/4W
R227	1-249-429-11	CARBON	10K	5%	1/4W
R228	1-249-429-11	CARBON	10K	5%	1/4W
R229	1-249-429-11	CARBON	10K	5%	1/4W
R230	1-249-443-11	CARBON	0.47	5%	1/4W F
R231	1-249-443-11	CARBON	0.47	5%	1/4W F
R232	1-249-437-11	CARBON	47K	5%	1/4W
R233	1-249-417-11	CARBON	1K	5%	1/4W
R234	1-249-417-11	CARBON	1K	5%	1/4W
R235	1-249-437-11	CARBON	47K	5%	1/4W
R236	1-249-437-11	CARBON	47K	5%	1/4W
R237	1-249-441-11	CARBON	100K	5%	1/4W
R238	1-249-399-11	CARBON	33	5%	1/4W
R239	1-247-843-11	CARBON	3.3K	5%	1/4W
R240	1-249-441-11	CARBON	100K	5%	1/4W
R241	1-249-437-11	CARBON	47K	5%	1/4W
R242	1-215-461-00	METAL	47K	1%	1/4W
R243	1-215-469-00	METAL	100K	1%	1/4W
R244	1-247-843-11	CARBON	3.3K	5%	1/4W
R245	1-216-441-00	METAL OXIDE	27K	5%	1W F
R246	1-215-435-00	METAL	3.9K	1%	1/4W
R247	1-249-421-11	CARBON	2.2K	5%	1/4W
R248	1-249-425-11	CARBON	4.7K	5%	1/4W
R249	1-215-421-00	METAL	1K	1%	1/4W
R250	1-215-445-00	METAL	10K	1%	1/4W
R251	1-247-887-00	CARBON	220K	5%	1/4W
R252	1-249-429-11	CARBON	10K	5%	1/4W
R254	1-247-807-31	CARBON	100	5%	1/4W
R255	1-249-417-11	CARBON	1K	5%	1/4W
R256	1-249-441-11	CARBON	100K	5%	1/4W
R257	1-249-437-11	CARBON	47K	5%	1/4W
R258	1-215-435-00	METAL	3.9K	1%	1/4W
R259	1-215-439-00	METAL	5.6K	1%	1/4W
R260	1-215-445-00	METAL	10K	1%	1/4W
R261	1-249-429-11	CARBON	10K	5%	1/4W
R262	1-247-807-31	CARBON	100	5%	1/4W
R263	1-215-878-00	METAL OXIDE	33K	5%	1W F
R264	1-249-429-11	CARBON	10K	5%	1/4W
R265	1-247-807-31	CARBON	100	5%	1/4W
R266	1-249-441-11	CARBON	100K	5%	1/4W
R267	1-215-379-00	METAL	18	1%	1/4W
R268	1-215-379-00	METAL	18	1%	1/4W
R269	1-215-421-00	METAL	1K	1%	1/4W
R270	1-215-421-00	METAL	1K	1%	1/4W
R271	1-215-924-00	METAL OXIDE	15K	5%	3W F
R272	1-249-453-11	CARBON	3.3	5%	1/4W F
R273	1-249-429-11	CARBON	10K	5%	1/4W
R274	1-249-429-11	CARBON	10K	5%	1/4W
R275	1-249-429-11	CARBON	10K	5%	1/4W
R276	1-249-429-11	CARBON	10K	5%	1/4W
R281	1-249-451-11	CARBON	2.2	5%	1/4W F
R282	1-249-451-11	CARBON	2.2	5%	1/4W F
R283	1-249-425-11	CARBON	4.7K	5%	1/4W
R284	1-215-467-00	METAL	82K	1%	1/4W
R285	1-215-445-00	METAL	10K	1%	1/4W
R286	1-215-911-11	METAL OXIDE	100	5%	3W F
R287	1-202-727-00	SOLID	4.7M	10%	1/2W
R288	1-202-727-00	SOLID	4.7M	10%	1/2W
R289	1-202-727-00	SOLID	4.7M	10%	1/2W
R290	1-202-727-00	SOLID	4.7M	10%	1/2W
R291	1-215-429-00	METAL	2.2K	1%	1/4W
R292	1-215-429-00	METAL	2.2K	1%	1/4W
R293	1-249-417-11	CARBON	1K	5%	1/4W
R294	1-215-429-00	METAL	2.2K	1%	1/4W
R295	1-215-429-00	METAL	2.2K	1%	1/4W
R296	1-249-429-11	CARBON	10K	5%	1/4W
R297	1-215-453-00	METAL	22K	1%	1/4W
R298	1-249-417-11	CARBON	1K	5%	1/4W

<VARIABLE RESISTOR>

RV101	1-228-997-00	RES, ADJ, CARBON 100K
RV104	1-228-997-00	RES, ADJ, CARBON 100K

<TRANSFORMER>

T2	△1-439-479-11	TRANSFORMER, LINE OUTPUT
T3	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE
T102	△1-439-480-11	TRANSFORMER, HORIZONTAL OUTPUT
T103	1-437-144-11	TRANSFORMER, FERRITE (HDT)
T104	1-437-144-11	TRANSFORMER, FERRITE (HDT)
T105	1-424-290-11	TRANSFORMER, DRIVE

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* A-1380-521-A KC BOARD, COMPLETE

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<CAPACITOR>

C201	1-126-964-11	ELECT	10MF	20%	50V
C202	1-126-964-11	ELECT	10MF	20%	50V
C204	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C205	1-163-031-11	CERAMIC CHIP	0.01MF		50V

KC KF

REF. NO.	PART NO.	DESCRIPTION			REMARK
C206	1-126-964-11	ELECT	10MF	20%	50V
C207	1-104-709-11	ELECT	4.7MF	0	160V
C208	1-102-050-00	CERAMIC	0.01MF		500V
C209	1-124-903-11	ELECT	1MF	20%	50V
C210	1-136-173-00	FILM	0.47MF	5%	50V
C211	1-126-967-11	ELECT	47MF	20%	50V
C212	1-126-967-11	ELECT	47MF	20%	50V
C213	1-126-964-11	ELECT	10MF	20%	50V
C214	1-126-964-11	ELECT	10MF	20%	50V
C215	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
		<CONNECTOR>			
CN291	1-564-511-11	PLUG, CONNECTOR 8P			
CN292	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P			
CN293	*1-564-517-11	PLUG, CONNECTOR 2P			
CN294	*1-564-506-11	PLUG, CONNECTOR 3P			
CN295	*1-564-518-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D201	8-719-110-17	DIODE RD10ESB2			
D202	8-719-110-17	DIODE RD10ESB2			
D203	8-719-948-45	DIODE ERA22-08			
D204	8-719-921-19	DIODE 1SS119-25TG			
D205	8-719-921-19	DIODE 1SS119-25TG			
		<IC>			
IC201	8-759-109-82	IC uPC814C			
IC202	8-759-109-82	IC uPC814C			
		<COIL>			
L201	1-459-155-00	COIL (WITH CORE) 45UH			
		<TRANSISTOR>			
Q201	8-729-112-61	TRANSISTOR 2SA1441-L			
	4-382-854-11	SCREW (M3X10), P, SW (+) ; Q201			
Q202	8-729-207-82	TRANSISTOR 2SC3421-Y			
Q203	8-729-143-42	TRANSISTOR 2SK929			
Q204	8-729-143-42	TRANSISTOR 2SK929			
	4-382-854-11	SCREW (M3X10), P, SW (+) ; Q204			
Q205	8-729-033-29	TRANSISTOR 2SD1210(LK)-MT2			
	4-382-854-11	SCREW (M3X10), P, SW (+) ; Q205			
	4-393-406-01	SHEET (R), RADIATION ; Q205			
	7-682-548-04	SCREW +P 3X8 ; Q205			
Q206	8-729-033-30	TRANSISTOR 2SB897(LK)-MT2			
	4-382-854-11	SCREW (M3X10), P, SW (+) ; Q206			
	4-393-406-01	SHEET (R), RADIATION ; Q206			
	7-682-548-04	SCREW +P 3X8 ; Q206			
		<RESISTOR>			
R201	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R204	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R205	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R206	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R207	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R208	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R209	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R210	1-202-818-00	SOLID	1K	20%	1/2W
R211	1-202-818-00	SOLID	1K	20%	1/2W
R212	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R213	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R214	1-215-491-00	METAL	820K	1%	1/4W
R215	1-215-902-11	METAL OXIDE	47K	5%	2W F
R216	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R217	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R218	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R219	1-249-923-11	CARBON	1K	5%	1/4W F
R220	1-249-899-11	CARBON	100	5%	1/4W F
R221	1-202-842-11	SOLID	220K	20%	1/2W
R222	1-249-923-11	CARBON	1K	5%	1/4W F
R223	1-215-904-11	METAL OXIDE	100K	5%	2W F
R224	1-202-842-11	SOLID	220K	20%	1/2W
R225	1-249-923-11	CARBON	1K	5%	1/4W F
R226	1-249-383-11	CARBON	1.5	5%	1/4W F
R227	1-249-451-11	CARBON	2.2	5%	1/4W F
R228	1-208-784-11	METAL CHIP	1.2K	0.50%	1/10W
R229	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R230	1-216-637-11	METAL CHIP	270	0.50%	1/10W
R231	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R232	1-249-899-11	CARBON	100	5%	1/4W F
R233	1-249-899-11	CARBON	100	5%	1/4W F
R234	1-249-447-11	CARBON	1	5%	1/4W F
R235	1-249-447-11	CARBON	1	5%	1/4W F
R236	1-249-923-11	CARBON	1K	5%	1/4W F
R237	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R238	1-249-449-11	CARBON	1.5	5%	1/4W F
		<SPARK GAP>			
SG201	1-519-422-11	GAP, SPARK			
SG202	1-519-422-11	GAP, SPARK			
		<TRANSFORMER>			
T210	1-429-559-11	TRANSFORMER, FERRITE (DFT)			

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* A-1380-522-A KF BOARD, COMPLETE
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		<CAPACITOR>			
C1	1-124-902-00	ELECT	0.47MF	20%	50V
C2	1-126-967-11	ELECT	47MF	20%	16V
C3	1-124-902-00	ELECT	0.47MF	20%	50V
C4	1-126-967-11	ELECT	47MF	20%	16V
C5	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C6	1-126-964-11	ELECT	10MF	20%	50V
C7	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8	1-124-903-11	ELECT	1MF	20%	50V
C9	1-130-871-11	FILM	0.01MF	5%	50V
C10	1-124-903-11	ELECT	1MF	20%	50V
C11	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C12	1-126-964-11	ELECT	10MF	20%	50V
C13	1-124-903-11	ELECT	1MF	20%	50V
C14	1-130-871-11	FILM	0.01MF	5%	50V
C15	1-124-903-11	ELECT	1MF	20%	50V
C16	1-136-161-00	FILM	0.047MF	5%	50V
C17	1-124-902-00	ELECT	0.47MF	20%	50V
C18	1-126-096-11	ELECT	10MF	20%	25V
C19	1-126-963-11	ELECT	4.7MF	20%	50V
C20	1-126-967-11	ELECT	47MF	20%	16V
C21	1-124-902-00	ELECT	0.47MF	20%	50V
C22	1-136-165-00	FILM	0.1MF	5%	50V
C23	1-136-155-00	FILM	0.015MF	5%	50V
C24	1-126-967-11	ELECT	47MF	20%	16V
C25	1-124-902-00	ELECT	0.47MF	20%	50V
C26	1-126-964-11	ELECT	10MF	20%	50V

KF Y

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
CN301	1-564-524-11	PLUG, CONNECTOR 9P	
CN302	*1-564-518-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D1	8-719-106-71	DIODE RD12M-B2	
		<IC>	
IC1	8-759-708-12	IC NJM78L12A	
IC2	8-759-700-69	IC NJM79L12A	
IC3	8-759-345-38	IC HD14538BP	
IC4	8-759-109-82	IC uPC814C	
IC5	8-752-065-69	IC CXA1470AS	
IC6	8-759-144-82	IC uPC2405HF	
IC7	8-759-247-67	IC LM2990T-5.0	
		<TRANSISTOR>	
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
R1	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R2	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R3	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R4	1-216-667-11	METAL CHIP 4.7K 0.50%	1/10W
R5	1-216-687-11	METAL CHIP 33K 0.50%	1/10W
R6	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R7	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R8	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R9	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R10	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R11	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R12	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R13	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R14	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R15	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R16	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R17	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R18	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R19	1-216-039-00	METAL GLAZE 390 5%	1/10W
R20	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R21	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R22	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R23	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R24	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R25	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R26	1-208-823-11	METAL CHIP 51K 0.50%	1/10W
R27	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R28	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W

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* A-1394-749-A Y BOARD, COMPLETE
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	1-526-654-21	SOCKET, IC (DP) 16P
*	1-526-659-00	SOCKET, IC (DP) 28P
*	1-526-950-11	SOCKET, IC 64P
*	1-563-949-11	SOCKET, SIL 8P
	7-322-065-19	RUBBER, SILICON RTV (KE490W)
	9-910-999-31	TAPE, MASKING (19MMX50M) #232

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<CAPACITOR>	
C2	1-126-963-11	ELECT 4.7MF 20%	50V
C3	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C4	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C5	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C6	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C7	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C8	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C9	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C10	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C11	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C12	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
C13	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
C14	1-163-036-00	CERAMIC CHIP 0.068MF	50V
C15	1-163-036-00	CERAMIC CHIP 0.068MF	50V
C16	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C17	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C18	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C19	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C20	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C21	1-163-231-11	CERAMIC CHIP 15PF 5%	50V
C22	1-163-099-00	CERAMIC CHIP 18PF 5%	50V
C23	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C24	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C25	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C26	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C27	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C28	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C29	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C30	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C31	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
C32	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
C33	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C34	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C35	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C36	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C37	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C38	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C39	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C40	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C41	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C42	1-128-581-11	ELECT 4.7MF 20%	63V
C43	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C45	1-163-087-00	CERAMIC CHIP 4PF 0.25PF	50V
C46	1-163-222-11	CERAMIC CHIP 5PF 0.25PF	50V
C47	1-104-661-91	ELECT 330MF 20%	16V
C48	1-128-581-11	ELECT 4.7MF 20%	63V
C49	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C50	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C51	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C52	1-126-935-11	ELECT 470MF 20%	16V
C53	1-128-581-11	ELECT 4.7MF 20%	63V
C54	1-126-933-11	ELECT 100MF 20%	16V
C55	1-126-933-11	ELECT 100MF 20%	16V
C56	1-126-933-11	ELECT 100MF 20%	16V
C57	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V
C58	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V
C59	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C60	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C61	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C62	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C63	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C64	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C65	1-163-036-00	CERAMIC CHIP 0.068MF	50V
C67	1-104-661-91	ELECT 330MF 20%	16V
C68	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C69	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C70	1-163-251-11	CERAMIC CHIP 100PF 5%	50V

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C71	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C72	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C73	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C74	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C75	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C76	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C77	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C78	1-126-964-11	ELECT	10MF	20%	50V
C79	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C81	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C82	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C83	1-126-964-11	ELECT	10MF	20%	50V
C84	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C85	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C86	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C87	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C88	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C90	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C91	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C92	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C93	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V
C94	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C95	1-128-581-11	ELECT	4.7MF	20%	63V
C97	1-104-661-91	ELECT	330MF	20%	16V
C98	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C99	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C100	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C101	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C102	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C103	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C104	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C106	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C107	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C109	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C110	1-164-096-11	CERAMIC	0.01MF		50V
		<CONNECTOR>			
CN52	*1-568-984-11	CONNECTOR, MALE 96P			
		<DIODE>			
D2	8-719-971-20	DIODE ERC38-06			
D4	8-719-820-12	DIODE TLR224			
D5	8-719-104-34	DIODE 1S2836			
D7	8-719-801-78	DIODE 1SS184			
D8	8-719-801-78	DIODE 1SS184			
D9	8-719-104-34	DIODE 1S2836			
D10	8-719-104-34	DIODE 1S2836			
		<IC>			
IC1	8-759-320-49	IC HD64180R1P8			
IC3	8-759-336-84	IC LC3564SM-10			
IC4	8-759-196-99	IC uPD28C64ACZ-20			
IC5	8-759-925-80	IC SN74HC14ANS			
IC6	8-759-239-55	IC TC74HC123AF			
IC7	8-759-008-21	IC MC74HC541F			
IC8	8-759-008-21	IC MC74HC541F			
IC9	8-759-995-97	IC MB8855-1314N			
IC10	8-759-984-56	IC MB670840PF			
IC11	8-759-984-59	IC MB654842UPF			
IC12	8-759-984-58	IC MB671469PF			
IC13	8-759-258-20	IC MBCG24123-4188			
IC14	8-752-350-68	IC CXK5863BM-35			
IC15	8-752-333-84	IC CXK3864-040M			
IC16	8-752-333-85	IC CXK3864-041M			

REF. NO.	PART NO.	DESCRIPTION			REMARK
IC17	8-752-333-86	IC CXK3864-042M			
IC18	8-759-301-24	IC HD10124			
IC19	8-759-301-24	IC HD10124			
IC20	8-752-306-51	IC CX23065A			
IC21	8-759-911-24	IC SN74S124N			
IC22	8-759-100-93	IC uPC393G2			
IC23	8-759-034-47	IC MC74F00M-T2			
IC24	8-759-061-67	IC MC34051M			
IC25	8-759-114-06	IC uPC814G2-1			
IC26	8-759-232-50	IC TC74HC132AF			
IC27	8-759-240-41	IC TC74HC107AP			
IC28	8-759-032-01	IC MC74HC00AF			
IC29	8-759-239-55	IC TC74HC123AF			
IC30	8-759-032-29	IC MC74HC126AF			
IC31	8-759-925-80	IC SN74HC14ANS			
IC32	8-759-008-21	IC MC74HC541F			
IC33	8-759-979-65	IC RH5VA43AA-T1			
IC34	8-759-032-41	IC MC74HC157AF			
IC35	8-759-144-82	IC uPC2405HF			
IC36	8-759-911-24	IC SN74S124N			
IC37	8-759-232-58	IC TC74HC139AF			
IC38	8-759-033-03	IC MC74F08M			
		<COIL>			
L1	1-459-155-00	COIL (WITH CORE) 45UH			
L2	1-459-155-00	COIL (WITH CORE) 45UH			
L3	1-459-155-00	COIL (WITH CORE) 45UH			
L4	1-459-155-00	COIL (WITH CORE) 45UH			
		<IC LINK>			
PS1	⚠1-532-679-91	LINK, IC 0.6A/150V			
PS2	⚠1-532-679-91	LINK, IC 0.6A/150V			
		<TRANSISTOR>			
Q3	8-729-216-22	TRANSISTOR 2SA1162-G			
Q4	8-729-216-22	TRANSISTOR 2SA1162-G			
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q6	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q8	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q9	8-729-216-22	TRANSISTOR 2SA1162-G			
Q10	8-729-230-49	TRANSISTOR 2SC2712-YG			
		<RESISTOR>			
R1	1-216-001-00	METAL GLAZE	10	5%	1/10W
R2	1-216-001-00	METAL GLAZE	10	5%	1/10W
R3	1-216-001-00	METAL GLAZE	10	5%	1/10W
R4	1-216-001-00	METAL GLAZE	10	5%	1/10W
R5	1-216-001-00	METAL GLAZE	10	5%	1/10W
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W
R7	1-216-001-00	METAL GLAZE	10	5%	1/10W
R8	1-216-001-00	METAL GLAZE	10	5%	1/10W
R9	1-216-001-00	METAL GLAZE	10	5%	1/10W
R10	1-216-001-00	METAL GLAZE	10	5%	1/10W
R11	1-216-001-00	METAL GLAZE	10	5%	1/10W
R12	1-216-001-00	METAL GLAZE	10	5%	1/10W
R13	1-216-025-91	METAL GLAZE	100	5%	1/10W
R14	1-216-025-91	METAL GLAZE	100	5%	1/10W
R15	1-216-025-91	METAL GLAZE	100	5%	1/10W
R16	1-216-025-91	METAL GLAZE	100	5%	1/10W
R17	1-216-037-00	METAL GLAZE	330	5%	1/10W
R18	1-216-025-91	METAL GLAZE	100	5%	1/10W
R19	1-216-025-91	METAL GLAZE	100	5%	1/10W
R20	1-216-037-00	METAL GLAZE	330	5%	1/10W
R21	1-216-025-91	METAL GLAZE	100	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION		REMARK
R22	1-216-025-91	METAL GLAZE 100	5%	1/10W
R23	1-216-025-91	METAL GLAZE 100	5%	1/10W
R24	1-216-037-00	METAL GLAZE 330	5%	1/10W
R25	1-216-037-00	METAL GLAZE 330	5%	1/10W
R26	1-216-037-00	METAL GLAZE 330	5%	1/10W
R27	1-216-025-91	METAL GLAZE 100	5%	1/10W
R28	1-216-025-91	METAL GLAZE 100	5%	1/10W
R29	1-216-025-91	METAL GLAZE 100	5%	1/10W
R30	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R31	1-216-025-91	METAL GLAZE 100	5%	1/10W
R32	1-216-025-91	METAL GLAZE 100	5%	1/10W
R33	1-216-037-00	METAL GLAZE 330	5%	1/10W
R34	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R36	1-216-037-00	METAL GLAZE 330	5%	1/10W
R37	1-216-025-91	METAL GLAZE 100	5%	1/10W
R38	1-216-025-91	METAL GLAZE 100	5%	1/10W
R39	1-216-037-00	METAL GLAZE 330	5%	1/10W
R40	1-216-037-00	METAL GLAZE 330	5%	1/10W
R41	1-216-037-00	METAL GLAZE 330	5%	1/10W
R42	1-216-037-00	METAL GLAZE 330	5%	1/10W
R43	1-216-037-00	METAL GLAZE 330	5%	1/10W
R44	1-216-025-91	METAL GLAZE 100	5%	1/10W
R45	1-216-037-00	METAL GLAZE 330	5%	1/10W
R46	1-216-037-00	METAL GLAZE 330	5%	1/10W
R47	1-216-025-91	METAL GLAZE 100	5%	1/10W
R48	1-216-037-00	METAL GLAZE 330	5%	1/10W
R49	1-216-037-00	METAL GLAZE 330	5%	1/10W
R50	1-216-037-00	METAL GLAZE 330	5%	1/10W
R51	1-216-037-00	METAL GLAZE 330	5%	1/10W
R52	1-216-037-00	METAL GLAZE 330	5%	1/10W
R53	1-216-037-00	METAL GLAZE 330	5%	1/10W
R54	1-216-037-00	METAL GLAZE 330	5%	1/10W
R55	1-216-037-00	METAL GLAZE 330	5%	1/10W
R56	1-216-037-00	METAL GLAZE 330	5%	1/10W
R57	1-216-037-00	METAL GLAZE 330	5%	1/10W
R58	1-216-037-00	METAL GLAZE 330	5%	1/10W
R59	1-216-037-00	METAL GLAZE 330	5%	1/10W
R62	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R63	1-216-091-00	METAL GLAZE 56K	5%	1/10W
R64	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R65	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R66	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R67	1-216-045-00	METAL GLAZE 680	5%	1/10W
R68	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R69	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R70	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R71	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R72	1-216-025-91	METAL GLAZE 100	5%	1/10W
R73	1-216-025-91	METAL GLAZE 100	5%	1/10W
R74	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R75	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R76	1-216-045-00	METAL GLAZE 680	5%	1/10W
R77	1-216-045-00	METAL GLAZE 680	5%	1/10W
R78	1-216-045-00	METAL GLAZE 680	5%	1/10W
R79	1-216-045-00	METAL GLAZE 680	5%	1/10W
R80	1-216-025-91	METAL GLAZE 100	5%	1/10W
R81	1-216-025-91	METAL GLAZE 100	5%	1/10W
R82	1-216-045-00	METAL GLAZE 680	5%	1/10W
R83	1-216-045-00	METAL GLAZE 680	5%	1/10W
R84	1-216-025-91	METAL GLAZE 100	5%	1/10W
R85	1-216-045-00	METAL GLAZE 680	5%	1/10W
R86	1-216-045-00	METAL GLAZE 680	5%	1/10W
R87	1-216-045-00	METAL GLAZE 680	5%	1/10W
R88	1-216-045-00	METAL GLAZE 680	5%	1/10W
R89	1-216-025-91	METAL GLAZE 100	5%	1/10W
R90	1-216-025-91	METAL GLAZE 100	5%	1/10W
R91	1-216-045-00	METAL GLAZE 680	5%	1/10W
R92	1-216-025-91	METAL GLAZE 100	5%	1/10W
R93	1-216-045-00	METAL GLAZE 680	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION		REMARK
R102	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R103	1-216-085-00	METAL GLAZE 33K	5%	1/10W
R104	1-216-085-00	METAL GLAZE 33K	5%	1/10W
R105	1-216-083-00	METAL GLAZE 27K	5%	1/10W
R106	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R107	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R108	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R109	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R110	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R111	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R112	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R113	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R114	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R115	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R116	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R117	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R118	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R119	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R120	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R121	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R122	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R123	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R124	1-216-045-00	METAL GLAZE 680	5%	1/10W
R125	1-216-025-91	METAL GLAZE 100	5%	1/10W
R126	1-216-025-91	METAL GLAZE 100	5%	1/10W
R127	1-216-025-91	METAL GLAZE 100	5%	1/10W
R128	1-216-025-91	METAL GLAZE 100	5%	1/10W
R129	1-216-025-91	METAL GLAZE 100	5%	1/10W
R130	1-216-025-91	METAL GLAZE 100	5%	1/10W
R131	1-216-025-91	METAL GLAZE 100	5%	1/10W
R132	1-216-025-91	METAL GLAZE 100	5%	1/10W
R133	1-216-025-91	METAL GLAZE 100	5%	1/10W
R134	1-216-025-91	METAL GLAZE 100	5%	1/10W
R135	1-216-025-91	METAL GLAZE 100	5%	1/10W
R136	1-216-025-91	METAL GLAZE 100	5%	1/10W
R137	1-216-025-91	METAL GLAZE 100	5%	1/10W
R138	1-216-025-91	METAL GLAZE 100	5%	1/10W
R139	1-216-025-91	METAL GLAZE 100	5%	1/10W
R140	1-216-025-91	METAL GLAZE 100	5%	1/10W
R141	1-216-025-91	METAL GLAZE 100	5%	1/10W
R142	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R143	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R144	1-216-295-91	CONDUCTOR, CHIP		
R146	1-216-671-11	METAL CHIP 6.8K	0.50%	1/10W
R147	1-216-025-91	METAL GLAZE 100	5%	1/10W
R148	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R149	1-216-025-91	METAL GLAZE 100	5%	1/10W
R150	1-216-105-91	METAL GLAZE 220K	5%	1/10W
R151	1-216-113-00	METAL GLAZE 470K	5%	1/10W
R152	1-216-025-91	METAL GLAZE 100	5%	1/10W
R153	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R154	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R155	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R156	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R157	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R158	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R159	1-216-037-00	METAL GLAZE 330	5%	1/10W
R162	1-216-037-00	METAL GLAZE 330	5%	1/10W
R163	1-216-037-00	METAL GLAZE 330	5%	1/10W
R164	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R165	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R166	1-216-025-91	METAL GLAZE 100	5%	1/10W
R167	1-216-037-00	METAL GLAZE 330	5%	1/10W
R168	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R169	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R170	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R171	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R172	1-216-085-00	METAL GLAZE 33K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION		REMARK
R173	1-216-041-00	METAL GLAZE 470	5%	1/10W
R174	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R175	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R176	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R177	1-216-129-00	METAL GLAZE 2.2M	5%	1/10W
R178	1-216-045-00	METAL GLAZE 680	5%	1/10W
R179	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R181	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R182	1-216-033-00	METAL GLAZE 220	5%	1/10W
R183	1-216-033-00	METAL GLAZE 220	5%	1/10W
R184	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R189	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R190	1-216-295-91	CONDUCTOR, CHIP		
R191	1-216-017-91	METAL GLAZE 47	5%	1/10W
R192	1-216-033-00	METAL GLAZE 220	5%	1/10W
R193	1-216-033-00	METAL GLAZE 220	5%	1/10W
R194	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R195	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R199	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R200	1-216-295-91	CONDUCTOR, CHIP		
R202	1-216-295-91	CONDUCTOR, CHIP		
R204	1-216-037-00	METAL GLAZE 330	5%	1/10W
R205	1-216-295-91	CONDUCTOR, CHIP		
		<SWITCH>		
SW1	1-570-598-11	SWITCH, DIP		
SW2	1-570-204-21	SWITCH, KEY BOARD		
		<CRYSTAL>		
X1	1-578-687-11	VIBRATOR, CRYSTAL		
X2	1-577-116-21	VIBRATOR, CRYSTAL		
X3	1-567-192-11	OSCILLATOR, CERAMIC		
X4	1-577-353-11	VIBRATOR, CERAMIC		

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